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PREFACE

"Crisis" is a word in wide use these days, principally in regard to the global economy and the ever-worsening prognosis for the world's environment. The only prediction that is holding up well is that we will experience an accelerating pace of change; some of this change will be for the better, but some will be quite disconcerting.[1] While the word "crisis" is usually associated with a poor or dangerous state of affairs—an emergency or catastrophe—it can also mean a testing time, a turning point, or a crossroads in political, social or economic affairs. It is in this more optimistic sense that we examine development issues facing the Pacific islands region in this series of papers, giving consideration to the challenges that confront us but also looking for opportunities that lie within them.

Like all small island States in their susceptibility to economic and environmental shocks beyond their control, Pacific islands are well familiar with crises and abrupt changes in fortune. The region is especially vulnerable to natural disasters, in both their frequency and their enormous impact on small communities. A large proportion of a country can be affected by a single event and decades of development effort destroyed in a few hours, as happened when Cyclone Heta hit Niue in 2004. The changing climate is likely to bring storms and droughts of greater frequency and ferocity as well as rising sea

[1] A. Toffler, *Future Shock* (New York, Random House, 1970).

levels.[2] Particularly on the more crowded islands of the Pacific, the degradation and exploitation of almost all critical natural environments put at risk the health and the social and economic well-being of people. An international scramble is under way for the region's natural resources, especially timber and tuna, with scant regard for the fragile ecosystems of the Pacific islands or the living conditions of their people. The cost of poor environment management on a global, national or local scale has been evident for a long time but too little acted upon. The true cataclysm may be creeping up right under our eyes.

In recent decades, the Pacific region has barely emerged from one down-turn before wallowing into the next. These problems have been compounded in some countries by weak governance, widespread corruption and bouts of political instability or civil violence. In the past decade, political coups, civil unrest or violence has occurred in Fiji, Papua New Guinea, Solomon Islands, and (more briefly) Tonga and Vanuatu. The World Bank has calculated that chronic shocks to Pacific island economies during the 1990s averaged 2-7 per cent of gross domestic product in both disaster and non-disaster years.[3] The Asian Development Bank (ADB) and the Commonwealth Secretariat estimated that since independence in Papua New Guinea, Fiji, Solomon Islands and

[2] WHO, 2008. *Sanitation, hygiene and drinking water in the Pacific island countries: Converting commitment into action*. Manila: WHO Regional Office for the Western Pacific.

[3] World Bank, 2006b. *Not if, but when. Adapting to natural hazards in the Pacific Islands Region* Washington: The World Bank

Nauru, crisis and instability has cost almost $75 billion in foregone incomes.[4] At the Regional Review of the Implementation of the Programme of Action for the Least Developed Countries for the Decade 2001-2010, it was noted that the costs of violence, instability and conflict are visible in curtailed economic growth, reduced trade and investment flows, and declines or stagnation in human development indicators.[5]

The global economic crisis that began in 2007 is still reverberating through Pacific economies, deepening the pre-existing problems of stagnating growth, limited prospects, falling food and fuel security, and the atrophy of livelihoods. Lower commodity prices are drawing down export incomes, and tourism income and remittances are being affected by the economic recession in source economies.[6] Most public offshore investment funds have declined in value. Some large private sector operations dependent on offshore demand and funding are at risk. The growth forecasts for most Pacific countries have been progressively downgraded as the global economic crisis has deepened. ADB predicts the economies of the Federated States of Micronesia, Fiji, Palau, Samoa and Tonga will contract in 2009 and conditions will probably be tough in most Pacific economies into 2011.

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[4] ADB and Commonwealth Secretariat, 2005. *Towards a New Pacific Regionalism. Report to the Pacific Island Forum Secretariat.* Manila: ADB.

[5] ESCAP, Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States. "Report of the Regional Review of the Implementation of the Programme of Action for the Least Developed Countries for the Decade 2001-2010", (LDCCU/POA/RR/Rep), 14-15 March 2006, Bangkok.

[6] ADB, 2009. Taking the Helm: A Policy Brief on a Response to the Global Economic Crisis. Manila: ADB

Forecasts for a wide range of development concerns—summed up in the Millennium Development Goals—are not bright. Several recent reports have noted that the Pacific island region is unlikely to meet the Goals. Although the prospects for some countries are better than others, and some Goals are quite attainable, the attainment of these Goals by other countries is quite elusive. It is difficult to reduce such a diverse list of development issues across such a very diverse region to simple statements. Some countries in this region began this decade in a much worse state than others. For some indicators, such as primary school attendance, making good progress is easier when starting from a low base, that is, with few children attending school. For countries that began at a much higher base, making progress requires that they address pockets of disadvantage. Retreating from this numbers game, the real marks of progress are whether living standards are improving for most people or not, and whether the large differences in development conditions between and within Pacific island countries are narrowing.

Two papers in this publication focus on emerging demographic issues, namely the changing age structure of the region and the opportunities this raises, and the growing urban concentration of Pacific island populations, and the challenges this poses. The world population has surprised even demographers with the speed at which it is aging, and the supply of young working people is dwindling.[7] In the 1980s and 1990s, many studies about the Pacific predicted that the high level of remittances would soon fall. Yet they continue to rise as more and more young Pacific islanders head to jobs abroad and send money home. Young people from the Pacific are now in great demand as soldiers in foreign armies and as carers of elderly people in developed countries, jobs that are well-

[7] UNFPA, state of world population 2009. Facing a changing world: women, population and climate (United Nations publication. Sales No. E.09.III.H.1)

paid but have low-skill entry points. The market value for Pacific youth will increasingly be set on international terms, and the real money is to be made in higher skilled occupations. Jean Louis Rallu and Annette Sachs Robertson discuss the demographic "window of opportunity" posed by the growing cohort of young Pacific island adults (chapter I). The growth in urban poverty is among the most pressing development issues in the region, and threatens progress on a number of fronts. Alastair Wilkinson discusses the challenges to urban planning posed by rapidly growing settlements of informal housing in and around Pacific island towns and cities (chapter II).

High food and fuel prices are reversing the gains of poverty reduction efforts made in the Pacific over the past decade. Food prices rose sharply then eased back, but may well rise again soon, compounding the problems of many households across the region, particularly the poor. Part of the remedy is to boost the agricultural sector and retrieve some of region's lost food security. Marita Manley and Tim Martyn address the question of whether rising food prices could boost agricultural sectors in the Pacific (chapter III).

Given the enormity of disaster risks to Pacific island people and economies, more attention is being given to improving disaster risk management. Paula Holland reports on the economic advantages of investing in better risk management (chapter IV).

While tourism is highly vulnerable to economic slumps, this industry retains great potential for economic growth in the region, especially as the world market value of pristine island destinations and unique experiences continues to rise. In the final paper, Tony Everitt and David Harrison discuss how governments, together with the private sector and local communities, can address the challenges that tourism is facing so that the

sector continues to be a significant source of economic growth, and the types of policies that need to be pursued in other sectors to support tourism (chapter V).

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Abbreviations

ADB	Asian Development Bank
AusAID	Australian Agency for International Development
c.i.f.	cost, insurance, freight
DHS	demographic and health survey
EM-DAT	International Disaster Database
ESCAP	Economic and Social Commission for Asia and the Pacific
FAO	Food and Agriculture Organization
GDP	gross domestic product
HIV	human immunodeficiency virus
NGO	non-governmental organization
PIC	Pacific island country
SMEs	small and medium-sized enterprises
SOPAC	Pacific Islands Applied Geoscience Commission
SPC	Secretariat of the Pacific Community
SPDRP	South Pacific Disaster Reduction Programme
TFR	total fertility rate
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Children’s Fund

I. The Demographic Window Of Opportunity In Pacific Island Countries: Future Prospects

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A. Introduction

While annual economic growth rates have frequently reached double digits in Asia, in the Pacific the rate of economic growth has been slow, in some cases below the rate of population growth. It has been argued (Bloom, Canning 2001, Mason 2001a, Birdsall, Kelley and Sinding 2001, Ahlburg 2002, Pool, Wong and Vilquin 2006, Seetharam 2006) that one of the factors contributing to rapid economic growth in Asia is that Asian countries were able to take advantage of the "window of opportunity"[1] that is presented when rapid fertility decline brings about an age structure that is conducive to economic growth. This process does not yet appear in most Pacific island countries due to still high fertility in the frame of weak population and reproductive health policies. Thus, the Pacific faces a multifaceted issue linked to slow fertility transition that results in high dependency ratios, rapid population growth (unless it is reduced by emigration) and a substantial youth bulge, or even increasing youth cohorts.

This paper will examine the case of the demographic window of opportunity in the Pacific in relation to age structures, fertility trends, reproductive health and population-related policies. It will also consider the conditions for hastening the onset of the window of opportunity and include a rapid comparison with Asia to show the extent of the differences within the Asia-Pacific region.

[1] Sometimes also called the "demographic bonus", "demographic dividend" or "demographic window"; we prefer "(demographic) window of opportunity" as it shows that the positive effect of age structure on economic growth is not automatic but requires a favourable policy context.

B. Population trends, dependency ratio and the window of opportunity

1. Dependency ratio and the window of opportunity

In conditions of high fertility, the dependency ratio[2] is high. In very high fertility countries, the dependency ratio can even rise well above 100. A dependency ratio of 100 implies that a person of working age must support not only himself or herself but one dependent person as well, whereas a ratio of 50 implies that two adults support, in addition to themselves, only one dependent. Thus, a high dependency ratio is an economic burden that acts to depress economic growth. The demographic window of opportunity appears when rapidly declining fertility (or fertility transition[3]) reduces the number of dependent children in a population while at the same time the number of dependent elderly persons is still relatively low. This situation is reflected in a declining dependency ratio and therefore a declining economic burden for persons of working age. As the proportion of elderly persons in the population rises, due to the smaller number of children and rising life expectancy, the dependency ratio will again rise. In this case the dependency burden relates to the economic costs associated with supporting an older

[2] The dependency ratio is the ratio of dependents (children aged under 15 years and elderly over 65 years) to the working ages (15 to 64). This ratio is expressed as the number of dependents per 100 persons in the productive age range.

[3] Fertility transition is the phenomenon of fertility decline to replacement level: total fertility rate =2.1, where two parents are replaced in the next generation by two adults, plus a fraction to account for mortality until adult age (in this case, average age at childbearing).

population rather than a young one. This appears, however, only at the end of the demographic window, which lasts about two to three decades, and ageing can be kept moderate if fertility remains at replacement level (total fertility rate (TFR) = 2.1).

Most countries in East Asia have already experienced the bulk of their demographic bonus (Mason 1997, Westley 2002, Navaneetham 2004). Such trends are still several decades away in the Pacific island countries (PICs) where fertility decline is slow and dependency is mostly above 65, sometimes reaching above 80. Low dependency enables households to shift expenditures from basic needs (food and clothing) to durable goods and services as well as to the education of a smaller number of children. This contributes to diversifying the economy and increasing savings, and results in higher economic growth. High dependency is a burden on households and the State and hinders development (see box I-1).

2. Trends and levels in dependency in the Pacific

Trends in dependency are varied among PICs, but they have been only slowly declining in the recent past, such as in Fiji (Seniloli 2006), Vanuatu, Solomon Islands, Papua New Guinea (figure I-1). Dependency is quasi-stable in Polynesian countries due to sustained high emigration associated with stable fertility that results in a quasi-stable age structure. However, rates also happen to increase when migration peaks, such as in Cook Islands, Niue, Samoa, and Tuvalu. The Federated States of Micronesia and the Marshall Islands have seen more rapid decline following a drop in fertility. Kiribati shows a typical shape that inversely translates the drop and increase in fertility around 1970-1975 when these birth cohorts arrive at adulthood. Current levels of dependency

ratios (figure I-1 and table I-1) are far from a strong window of opportunity that is characterized by dependency ratios below 50. Only Palau presents such a level (43). Fiji is at 63; however, the indigenous Fijian dependency ratio is 70 while the Indo-Fijian ratio is 55. With regard to countries with dependency ratios of between 60 and 70, besides Fiji, we find only smaller countries with high migration rates (Cook Islands, Niue, Nauru) and they have varied (fluctuating) levels. Kiribati recently joined this group, due to its recent acceleration of fertility decline. Tuvalu is no longer included due to increases in fertility and migration. All other PICs are above 70, with the Marshall Islands, Solomon Islands, Vanuatu and larger Polynesian countries (Tonga and Samoa) being around or above 80.

Box I-1. The demographic window of opportunity

The demographic window, or window of opportunity, refers to a period of a low dependency ratio—usually below 50, meaning that more than two adults support one dependent—that is linked with and follows rapid fertility decline, reducing the number of young dependents (children) relative to the working age population. At the end of the process, ageing increases and the dependency ratio rises, due to elderly dependents, but it remains well below the level associated with rapid growth, if fertility remains at replacement level (TFR = 2.1). The period of opportunity lasts about two to three decades.

With many children, households spend most of their income meeting basic needs such as food, clothing and basic housing. Lower dependency enables households to spend more on durable household equipment and services that boost economic growth in the secondary and tertiary sectors. An increase in services creates jobs for women that mothers of small families are more likely to be able to take, increasing household income.

At the macrolevel, the State does not need to continuously increase expenditures in health, education and other services to cope with the rapid growth in the number of newborns and school-age children. The increased tax revenues of higher economic activity are available for development.

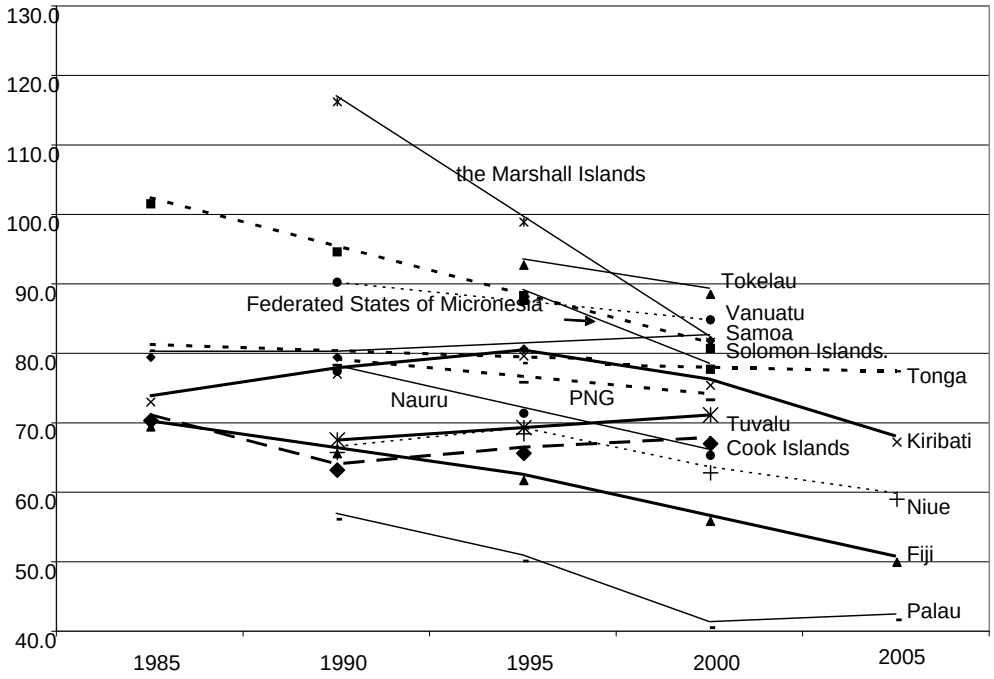
Although multivariate regression analysis and econometric modelling show a "robust statistical relationship between population age structure and per capita income growth" (Malmberg 2005), the effect of the window of opportunity on economic growth is not (as its name indicates) automatic. While it changes consumption patterns at the household level, the window of opportunity has to be supplemented by efficient policies that will ease domestic and foreign investments, increase mothers' participation in the labour market, facilitate equitable wage distribution and create employment for the large young-adult cohorts entering the labour force. The "youth bulge" generates most of the benefits of the window of opportunity, provided that youth can find employment. The expansion of the middle-aged group of the society associated with the process of aging of the youth bulge creates an increase in total savings in the economy.

Sources: Malmberg (2005), Mason (2006), Navaneetham (2004).

For comparison, in South, East and South-East Asia, three countries have dependency ratios below 50 (China and Thailand (43) and Singapore (39)), four (Brunei, Indonesia, Myanmar and Viet Nam) are below or around 55 and only three (Lao People's Democratic Republic, Pakistan and Timor-Leste) are above 75 (Nayab 2007). This shows the relatively delayed fertility transition process and advancement in the window of opportunity in Melanesia and part of Micronesia, compared to Asia. High dependency is mostly due to a high proportion of children under 15 years who often make up more than

40 per cent of the population, while the elderly represent less than 5 per cent. There are also high proportions (around 20 per cent) of youth in Melanesia, in the largest Polynesian countries (Samoa and Tonga) and in Micronesia, except Palau (table I-1). Populations with a large percentage of children (a large base of the age pyramid) and youth represent a strong population momentum that will keep population growth at high levels for decades, even if fertility declines.[4] High population growth rates and ever increasing birth cohort numbers put an additional pressure and burden on the already stressed health, education and public service systems of PICs.

Figure I-1. Dependency ratios in the Pacific from the mid-1980s to the mid-2000s



Source: National census data, various years. Please note: data have been centred on 0 and 5 digit; most Pacific island countries have censuses in years 9, 0, 1, 5 or 6 (data have been interpolated for countries with 10-year censuses).

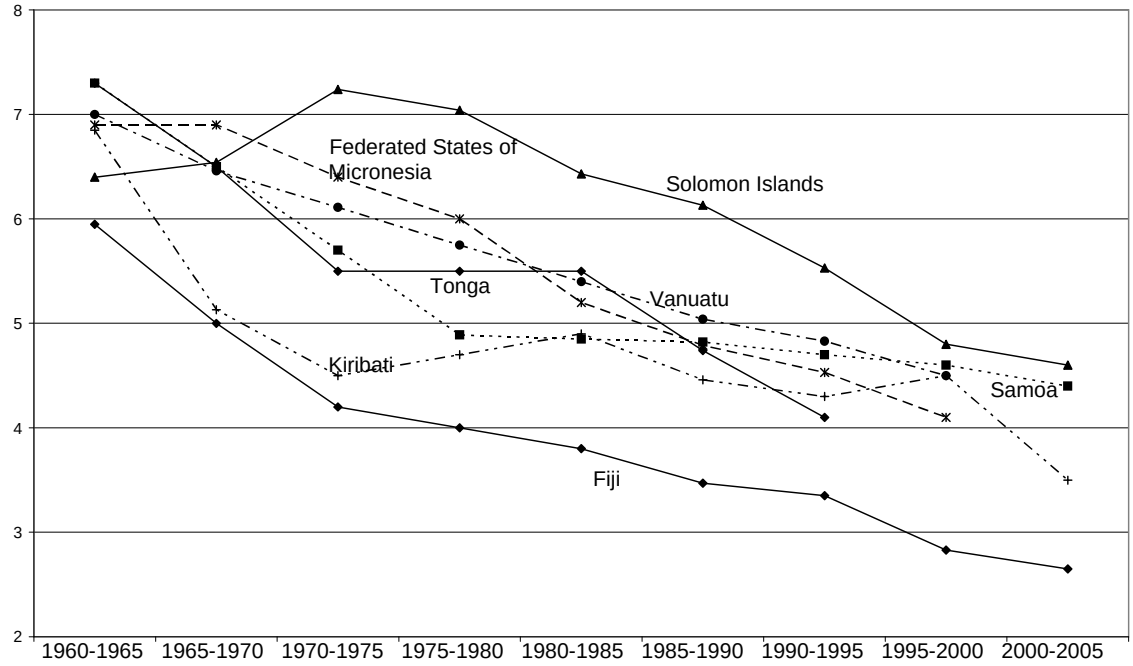
[4] Population momentum refers to the process in which large cohorts of children will increase the number of births when they arrive at reproductive ages, causing population to grow as an effect of past age structure even if fertility has declined.

There is a need for additional resources to maintain the coverage of basic services in primary health care and education and to address the need for additional coverage in vulnerable populations, as in certain groups in Melanesia where Millennium Development Goal indicators for child and maternal health-related services are low. Additional resources will also be required for improving the quality of services.

3. Fertility trends and population growth

The cause of high dependency is high fertility. Thus, the issue in the Pacific is whether declines in fertility, population growth rate and dependency ratio will be rapid enough to open a demographic window of opportunity, knowing that several years of fertility decline are needed before dependency is significantly reduced. The magnitude of the challenge lies in the slow fertility decline. In Samoa and Tonga, TFR declines are stalled or occurring in steps. Several countries show a slowing of the decline when TFR approaches 4, such as in Fiji from 1970-1975, Samoa from the late 1970s or Solomon Islands from 1999 (figure I-2). A similar trend has been observed in the Marshall Islands since 1990-2000, where fertility stabilized suddenly between 4.3 and 4.5 after a rapid drop in the 1990s. The experience of Kiribati is different, with an early decline to 4.5 in 1970-1975 followed by an increase to 4.9 in the early 1980s; subsequently, TFR fluctuated around 4.5 until the mid-1990s. The country's TFR declined to 3.5 in 2005.

Figure I-2. Total fertility rate in selected Pacific island countries, 1960-2005



Sources: National censuses and demographic and health surveys for recent years; United Nations Population Division, World Population Prospects database

In Melanesia, the TFR decline in Solomon Islands and Vanuatu is shown to be much later and slower than that in Fiji. The early fertility decline in Fiji was due to a sharp decline in Indo-Fijian fertility. However, since the late 1990s, Indo-Fijian fertility has stabilized, as it has completed the fertility transition and is now below replacement (1.9 in 2004). Thus, the slow decline of indigenous Fijian fertility (from 3.5 in 1996-2000 to 3.3 in 2001-2004) is now revealed in the pace of the country's overall fertility decline. Altogether, most PICs show TFR declines of less than 3 births over three decades, while many Asian countries witnessed similar, and sometimes more rapid, decline in less than two decades. This slow fertility decline results in TFR being currently between 3.5 and 4.5 in countries with high rates of emigration— Federated States of Micronesia, Marshall Islands, Tonga, Samoa as well as Kiribati and Tuvalu—and above 4.5 in Papua New Guinea, Solomon Islands and Vanuatu (table I1).

Cook Islands, Fiji and Niue have TFRs just below 3 and only Palau has completed the fertility transition. High fertility is the cause of high natural growth with rates above 1.5 per cent in all PICs except Niue and Palau and rates above 2 per cent in Melanesia (except Fiji), Federated States of Micronesia, Marshall Islands and Nauru in Micronesia and Samoa, Tokelau and Tonga in Polynesia. Such rates represent rapid growth. With 2.5 per cent annual growth, a population doubles in 28 years; with 2.0 per cent annual growth, it doubles in 35 years.

Table I-1. Population (mid-2006 estimate), total fertility rate, growth rates, proportion of population by large age groups and dependency ratio at latest census data available

Country (last census data available)	*Population mid-2008 (in thousands)*	*Total fertility rate*	*Natural increase (%)*	*Inter-censal growth rate*	*(%) 0-14 years*	*(%) 15-64 years*	*(%) 65 years and over*	*Depen-dency ratio*	*(%) 15-24 years*
Melanesia									
Fiji (2007)	839.3	2.7	1.5	0.7	29.0	66.3	4.6	50.8	19.4
Papua New Guinea (2000)	6 473.9	4.6	2.3	2.7	40.0	57.7	2.4	73.5	19.8
Solomon Islands (1999)	517.5	4.6	2.7	2.8	41.5	55.1	3.4	81.6	21.1
Vanuatu (1999)	233.0	4.8	2.2	2.8	42.7	53.9	3.4	85.7	17.8
Micronesia									
Kiribati (2005)	97.2	3.5	1.8	1.8	37.0	59.5	3.5	68.1	20.9
Marshall Islands (1999)	53.2	4.5	2.6	0.7	43.0	54.7	2.3	82.5	21.4
Micronesia (Federated States of) (2000)	110.4	4.1	2.3	0.2	40.3	56.0	3.7	78.6	21.3
Nauru (2002)	10.2	4.0	2.3	0.3	38.5	60.2	1.3	66.2	22.1
Palau (2005)	20.3	1.9	0.7	0.8	24.1	70.2	5.7	42.5	13.7
Polynesia									
Cook Islands (2001)	15.5	2.9	1.5	1.6	34.1	59.5	6.4	67.9	15.6
Niue (2006)	1.5	3.0	1.1	-3.0	26.7	62.5	10.7	59.9	16.4

Samoa (2001)	179.6	4.6	2.7	0.3	40.8	54.7	4.5	82.7	18.0
Tokelau (2006)	1.2	4.9	2.4	-1.0	35.1	57.6	7.4	73.7	19.0
Tonga (2006)	102.7	3.8	2.2	0.4	38.2	56.1	5.7	78.3	19.1
Tuvalu (2002)	9.7	3.7	1.6	0.5	36.2	58.2	5.7	72.0	15.8

Sources: National censuses and national demographic and health surveys, various years; Secretariat of the Pacific Community population datasheet 2008 for mid-2008 populations.

Such high natural growth is directly reflected in population growth in countries without migration outlets: Melanesia (except Fiji) and to some extent Kiribati, where migration is limited to seamen. In the last intercensal period, growth rates were around 2.7 per cent in Melanesia and 1.8 per cent in Kiribati. Polynesian countries have a long experience of large-scale emigration, which reduces population growth to low levels (0.3 per cent in Samoa and Tonga), or causes population decline (Niue and Tokelau) while the Cook Islands experience alternatively positive and negative growth (-3.7 per cent in 1996-2001 and 1.6 per cent in 2001-2006).

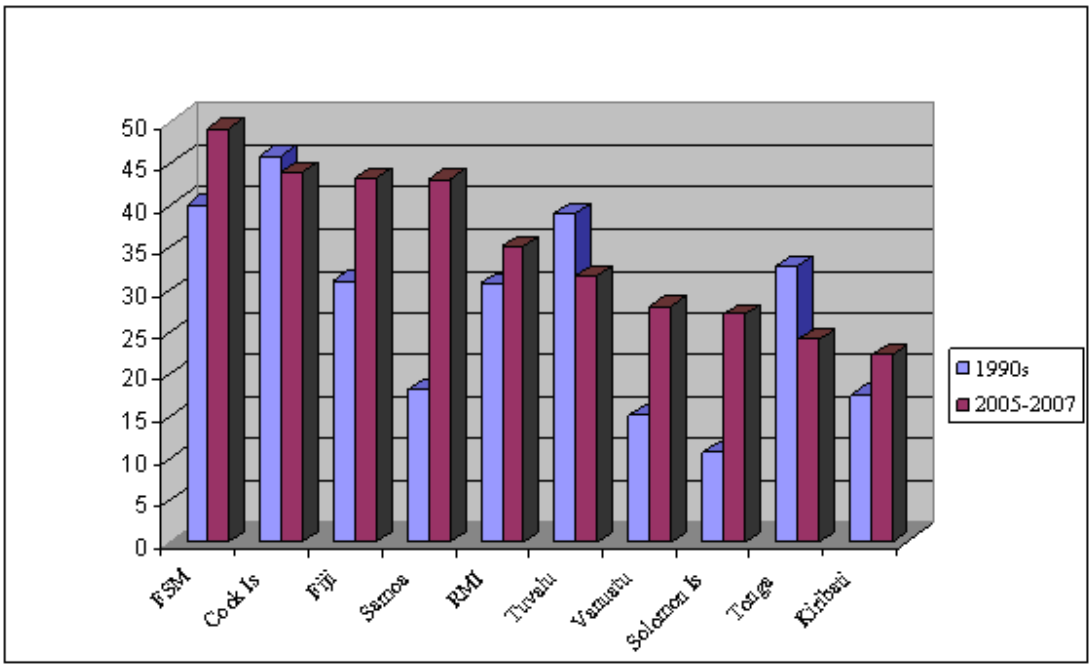
4. Reproductive health

Low contraceptive prevalence is the main reason for high fertility levels, with no PIC achieving a 50 per cent contraception prevalence rate. For some countries in which there are particularly high total fertility rates (TFR>3), contraceptive prevalence rates were generally below 30 per cent in 2005 (Kiribati, Solomon Islands, Tonga and Vanuatu) (figure I-3).[5] In other countries, such as Fiji, that have had relatively successful family

[5] The underreporting by ministries of health of contraceptive use is not uncommon in some countries where significant declines in TFRs have occurred without concomitant increases in the contraceptive prevalence rate. Women accessing contraceptives from private pharmacies, private practitioners and non-governmental organizations are often not routinely captured in ministry of health data on the contraceptive prevalence rate. The validation of this rate, especially by age, is urgently needed in most Pacific island countries.

planning programmes, it appears that the contraceptive prevalence reached a plateau in 1996, with fluctuations of between 40 per cent and 45 per cent since.

Figure I-3. Contraceptive prevalence rates in 1990 and 2006-2007 in selected Pacific island countries



Source: Ministries of health, 2006-08.

5. Future prospects for a demographic window of opportunity

We shall conclude this section with population projections, to give insights into the future prospects of a window of opportunity in several Pacific countries. Population projections based on the current trend of fertility decline show that Fiji will not experience a dependency ratio below 50 before 2015; but, it will be 2019 before the ratio reaches that level, according to a slow fertility decline scenario (figure I-4)[6]. However, this prospect is further in the future for Kiribati (occurring between 2020 and 2030

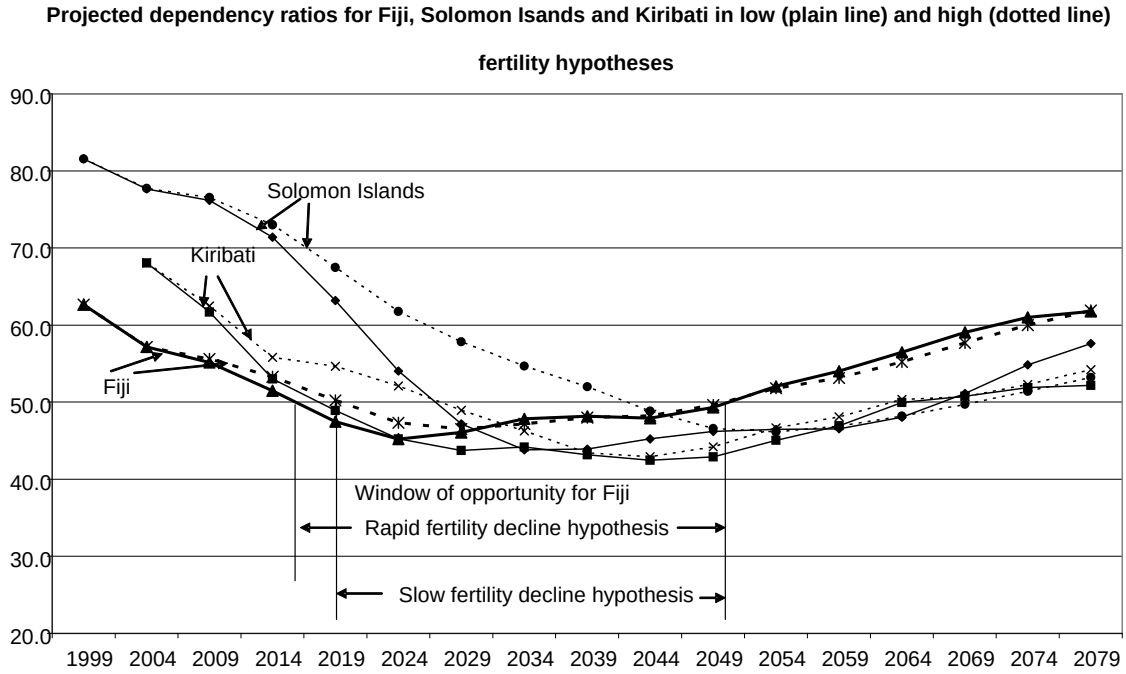
[6] Fiji actually shows dependency ration of 50.8 at the 2007 census. This is due to emigration and surprisingly small numbers of children aged 5-9 and 10-14 years that is not supported by the number of births registered; it may be due to under-enumeration or emigration. With expected number 5-9 and 10-14 years old children, dependency ratio would still be close to 52.

according to the respective “current trends” and “slow pace” of fertility decline scenarios) and still further away for Papua New Guinea, Solomon Islands and Vanuatu (between 2027 and 2040). Trends in dependency in Polynesian countries are flat or occasionally increasing and levels are high due to still high fertility and high emigration that depletes the number of adults. Despite the recent decline, dependency is also high in and the Federated States of Micronesia.[7] and the Marshall Islands. Thus, the above projections, the stability in Polynesia and the high levels in the Federated States of Micronesia and the Marshall Islands show that it will be a long time before a strong demographic window is observed in most PICs, with the exception of Fiji. Thus, only Palau is already experiencing the window of opportunity. [8]

[7] In these countries, migration appears to experience important fluctuations and a fragile balance is achieved between migration and growth in Polynesia. Under such conditions, a projection exercise to forecast migration and demographic window would be uncertain and has not been carried out.

[8] There is insufficient data for Palau to show how the demographic window would look in the Pacific as regards economic change, given that immigration also contributes to economic growth in Palau.

Figure I-4. Projected dependency ratios for Fiji, Kiribati and Solomon Islands in RAPID (plain line) and SLOW (dotted line) fertility decline hypotheses, showing the window of opportunity (as dependency below 50)



*Source:*author's calculation, Rallu, United Nations Population Fund, 2008.

C. Social, political and economic factors affecting fertility transition

The next two sections will review factors that affect fertility transition in the Pacific, with emphasis on the availability of reproductive health and family planning programmes and the social and political barriers to their development and effectiveness, as well as difficulties in evaluating such programmes.

The impact of family planning programmes on fertility rates has been highly significant in many Asian countries, possibly exceeding the impact of socio-economic factors such as rising income (Bloom, Canning and Sevilla 2002). However, not all family planning programmes have been equally successful. Some evidence suggests that the programmes that have had the most impact have emphasized demand for

contraception, outreach, lowering barriers to services, and convenience with a broad choice of contraceptives. Women's empowerment and educational status have a significant role to play in the uptake of family planning programmes: women with education who are able to decide on their reproductive choices will tend to reduce their fertility, enabling them to more actively participate in the labour market. While fertility declines have occurred in many PICs over the past five decades, the rate of decline has slowed in recent years.

1. Family planning programmes in the Pacific

In the Pacific, family planning programmes were initiated in the 1960s in an attempt to enhance socio-economic development through population reduction as well as to improve women's and children's health (House et al. 1999). While family planning was considered a central tenet of sexual and reproductive health and rights in the Programme of Action of the International Conference on Population and Development,[9] family planning programmes were given lower priority in the period following 1994, globally as well as in the Pacific (Robertson 2007). The lack of political commitment subsequent to the 1990s was due to a failure to recognize universal access to contraceptive information and services as an explicit strategy for poverty reduction and a fundamental reproductive right, during a time when religious and political conservatism, especially related to adolescent sexuality, were re-emerging globally. These influences, donor fatigue and competition for limited resources for HIV prevention resulted in fewer resources being made available for family planning programmes. The diminishing emphasis on family planning in the Pacific paralleled its global waning in the 1990s, despite the fact that

[9] *Report of the International Conference on Population and Development, Cairo, 5-13 September 1994* (United Nations publication, Sales No. E.95.XIII.18), chap. I, resolution 1, annex.

many PICs had some of the highest total fertility rates in the world as well as high population densities, such as those on Ebeye in the Marshall Islands (Robertson 2007).

The preferred criterion for determining the success of family planning programmes is "unmet need for contraception". However, few countries in the Pacific possess any measurements of this indicator. Demographic and health surveys (DHSs) and reproductive health surveys have not been common in the Pacific, unlike in other regions in the world. Prior to 2006, only two countries in the Pacific (Papua New Guinea and Samoa) had had a DHS conducted previously and two countries (Cook Islands and Fiji) had a reproductive health survey); thus only four countries had measures of unmet need for contraception. There is some evidence to suggest that unmet need for contraception is high in most Pacific island countries. Teenage fertility rates may serve as a proxy for unmet need in that age group. High teenage fertility rates in the Federated States of Micronesia, Kiribati, the Marshall Islands, Solomon Islands and Vanuatu along with high TFRs and relatively low contraceptive prevalence rates suggest that unmet need in those countries may indeed be very high.

2. Social, political and economic context

Strong traditional values that limit women's empowerment and decision-making in reproductive health matters may contribute to low contraceptive prevalence in some Pacific island countries such as Kiribati and Solomon Islands. Traditionally, Pacific Islanders have had a preference for larger families, believing that having more children is an investment which will enrich them later in life through the larger number of children contributing to their socio-economic welfare. However, desired family size may be

changing as suggested in the 1996 DHS of Papua New Guinea and 2007 DHS of the Marshall Islands, where the ideal number of children expressed was more than one child below current TFR (3.3 against 4.5). In some societies, religious beliefs also contribute to the low level of contraceptive use. In most Pacific island countries, individual sexual and reproductive health behaviour is also determined by societal Christian values. Most Pacific Islanders are Christians and their religious beliefs have an influence on their desired family size and the type of family planning methods used. The necessity of addressing adolescents' desire for sexual and reproductive health information and services, including contraception, is recognized in most countries, as a transition towards more supportive sociocultural and political environments becomes more visible in the education and health sectors, youth-friendly programmes expand and family life education and sex education are initiated in schools. To ensure sustainable community, family and individual involvement, programmes are anchored in Pacific cultural and familial values. Other key factors that may contribute to low contraceptive prevalence in the Solomon Islands and possibly many other PICs include a lack of access to services, a lack of transportation and finances, a lack of knowledge of contraceptive methods and benefits, and concerns about side effects (DHS 2008, unpublished).

The Pacific is not the only subregion where traditional and religious values hinder fertility decline; it is possible to reduce their role in fertility. In Asia, government incentives through "well-designed government programs catering to an existing or ideationally stimulated demand" (McNicoll 2006, Bryant 2007), which includes easy access to family planning centres, the availability of contraceptive at no or low cost and

the promotion of smaller family size to increase well-being and education of children, have appeared to be a major factor in the fertility transition. Using government influence to counter traditional beliefs has the potential to work in the island States as well, as shown by the experience in Kiribati, where government support for family planning resulted in a rapid fertility decline in the 1970-1975 period. These smaller cohorts are still visible in the age pyramid. However, as discussed above, many political, sociocultural and religious factors, including opposition by the Church, contributed to the end of that experience and TFR increased again to 4.5 from 1975-1980. It was not until 2000-2005 that a new decline brought TFR to 3.5.

In some countries, high emigration rates appear to contribute to maintaining a high level of fertility. With high emigration in the smaller Polynesian countries, a high fertility is needed to keep the population stable. Moreover, as emigration is an economic strategy at the family and national levels, children are needed to ensure a constant flow of migrants who will send remittances. Thus, in these countries, stable fertility may be considered part of an economic strategy and missing the demographic window is not an issue, as the economy at the society and family levels is supported by remittances (Peng and Cheng 2005). Thus, it appears that the sociocultural context, economic strategies and political decisions have strongly influenced slow, and sometimes stalled, fertility transition in PICs.

3. Youth issues

There has been considerable pressure to expand education, health and employment programmes for youth due to the increasing number of young people in most countries in

the Pacific. This youth bulge creates pressure on the labour market and results in high unemployment. This leads to poverty for those who have early births and large families and who are unable to secure formal sector jobs.

Kiribati, the Marshall Islands, Solomon Islands and Vanuatu have among the highest teenage fertility rates in the world. This is particularly worrisome as approximately 60 per cent of the population is less than 25 years of age in these countries and evidence is emerging that unsafe sexual behaviour among young people is highly prevalent in these countries. Changing population dynamics and high-risk sexual behaviour may also contribute to an emerging HIV epidemic, especially in Papua New Guinea, and to poverty. In many Asian countries, adolescent fertility is highest in the poorest income quintiles (Bernstein 2002). Such information is not currently available in the Pacific.

The opportunity for economic growth that occurs with the demographic window can be realized if appropriate investments are made in family planning; health and education, especially of girls and women; and in employment opportunities for a young and enabled workforce (Bernstein 2002). In the Pacific, further strengthening of adolescent sexual and reproductive health services and information and more opportunities for the employment of youth need to be undertaken.

D. Population related policies in the Pacific

1. Population policies

Population policies can have an impact on the timing and completion of the fertility transition, with concomitant effects on the window of opportunity (Bloom, Canning 2005).

The United Nations Population Fund (UNFPA) has been advocating for the adoption of population policies for several decades and has been providing assistance in the formulation and revision of the existing policies in the Pacific. National population policies have been prepared for Papua New Guinea, Samoa, Solomon Islands and Vanuatu. Solomon Islands and Vanuatu are in the process of revising their population policies while Samoa has not yet started its revision process. Kiribati recently formulated a population policy; however, it is not a true policy document as it does not include a detailed situation analysis or an implementation plan involving line ministries and all stakeholders. The Marshall Islands has expressed its intention to develop a population policy with UNFPA and the Secretariat of the Pacific Community (SPC). Fiji has recently been considering formulating a population policy.

The major issue with population policies in the Pacific has been the lack of implementation. In Solomon Islands, the 1999-2000 political crisis is the main reason for non-implementation. Recent policy drafts for Papua New Guinea, Solomon Islands and Vanuatu include framework implementation matrices, with monitoring indicators. Attention has been given to ensuring that they are consistent with national sustainable

development strategies/national development plans and other sectoral plans in health and education. Previous policy documents lacked associated implementation plans and the drafting of such plans were generally undertaken well after the policy was adopted. Completing a final plan continues to involve long delays; recently drafted revised policies have yet to be adopted by Government.

Thus, only Papua New Guinea can be considered as currently having and implementing a population policy, and the process of formulation/revision is slow in other PICs. This is a concern, as population policies are intended to address the demographic processes that are impeding population development and poverty reduction strategies. Population policies integrate other development goals and present ways to make the population situation more favourable to their achievement, by speeding up the arrival of the window of opportunity through appropriate fertility reduction.

Obstacles to political support for population policies include traditional and religious backgrounds and the role of influence groups (see subsection D.2 below). Another factor is the misperception that fertility decline will result in declining birth cohorts, when it would just stabilize birth cohort size due to population momentum (see box I-1). International organizations may also not have stated clearly enough the link between population growth and development. But recent policy drafts have been labelled “population and development” policies, as they are consistent with other national policies and plans. There is a need for population and development policies to address the issues

of population age and sex structures that directly impact economic trends and development as shown by the experience of the demographic window in Asia.

Effective governance is a necessary condition for the successful exploitation of the demographic window of opportunity as well as for the attainment of the Millennium Development Goals (ESCAP, UNDP and ADB 2005). Without political commitment and accountability frameworks in place, non-governmental organizations (NGOs), civil society organizations and private sector activities cannot be effective and their impact remains limited.

2. Reproductive health policies

Population policies relate directly to health policies, strategies and programmes, especially with respect to reproductive health and family planning. A national commitment to slower population growth combined with support for voluntary, rights-based family planning was an important aspect of the policy environment that proved to be highly successful in East Asia (Mason 1997, Mason 2001b, Bloom, Canning and Sevilla 2002).

In the Pacific, family planning programmes and strategies should be strengthened to address universal access to contraceptive services and information for disadvantaged groups, particularly outer island populations, young people and impoverished people. As larger investments are made in education and health, these disadvantaged groups of people may become more aware of the gains of a smaller family size and girls may become more empowered in reproductive health decision-making. The benefits of family

planning may then be fully realized and the chance for interrupting the cycle of poverty with its economic consequences should be within reach. Data from the Marshall Islands DHS (unpublished) reveal that women in the lowest wealth quintile have the highest fertility, but such analysis is not widely available for other countries in the Pacific.

While significant progress has been made to strengthen reproductive health service delivery in the public sector over the past few decades, few countries in the Pacific have current reproductive health policies or strategies, especially regarding strengthening family planning. As previously mentioned, contraceptive prevalence rates remain low and age-specific fertility rates for 15-19 years are high in many countries. In most PICs, national reproductive health policies and/or strategies need to be updated or developed to reflect a rights-based approach.

The Cook Islands, the Federated States of Micronesia, Kiribati, Solomon Islands, Tonga and Vanuatu have begun or completed the process of developing reproductive health policies and strategies of which family planning is a core component. NGOs, faith-based organizations, cultural leaders and women's and youth groups were involved in the formulation of these policies during the writing and review stages and will also be key to their implementation. While the incorporation of sexual and reproductive health, including family planning, in national and subnational development and sectoral plans (health policy, youth policy) has been achieved in most PICs, the extent to which this has translated into effective national implementation strategies is unclear.

Family planning can be an instrument of economic growth above and beyond its contribution to reproductive health (Bloom, Canning and Sevilla 2002, Bernstein 2002, McNicoll 2006). Strengthened rights-based family planning programmes have the potential to contribute to more rapid fertility decline and an earlier window of opportunity, as well as to the reduction of poverty. Repositioning family planning as a mechanism for achieving fundamental reproductive rights is an integral development strategy for poverty reduction that needs to be endorsed at the highest political level in most Pacific island countries. Political support is needed to facilitate financial commitment and institutional change and to encourage behaviour change.

In implementing programmatic changes, special attention should be given to:

- Developing access to sexual and reproductive health for all women and men, especially young people, those living in rural areas and outer islands, and disadvantaged or marginalized groups
- Providing a full range of sexual and reproductive health information and services, including family planning services and commodities
- Ensuring a secure, timely and reliable supply of contraceptives for all persons who wish to use contraception
- Strengthening national institutional capacity to identify and implement linkages for sexual and reproductive health and HIV, including pre- and in-service training in family planning and HIV counselling and testing

This is a strategy that has received substantial technical and funding support over the past four years in Pacific island countries, especially from UNFPA. Strategic plans and programmes are in place or being further refined to ensure the sustainable delivery of contraceptives to all sectors of society, including most at risk populations and disadvantaged groups. NGOs, such as the family health associations—affiliates of the International Planned Parenthood Federation—have played a significant role in reducing unmet need for family planning in urban areas by reaching many young clients who often prefer not to use government services.

While four countries have updated their national evidence-based guidelines for family planning (Federated States of Micronesia, Solomon Islands, Tonga and Vanuatu), the quality and accessibility of current family planning programmes in most countries need to be further improved. Strategies for strengthening national institutional capacity to identify and implement linkages for sexual and reproductive health and HIV are currently being developed to better address this issue.

E. Conclusion

Economic growth is not an automatic consequence of the demographic window; friendly economic, investment and labour policies that favour employment generation and labour flexibility are also necessary. If appropriate social and economic policies are not developed and implemented, the beneficial consequences of utilizing the demographic window/dividend might not eventuate and improved economic results

would not be experienced. High youth unemployment and immeasurable pressure on already over-burdened health, education and other public systems in Pacific island countries would ensue.

For the Pacific to be able to harness the benefits of the demographic window, there is a need for broad investments in social development programmes and income generation programmes for young people. Furthermore, strategies need to be developed to better address the brain drain that some countries are experiencing, and to foster open economic policies that facilitate greater investment and savings. To experience the benefits from the "window of opportunity", friendly economic policies that favour investment and employment generation need to be strengthened.

Family and individual aspirations for changes in economic situation as well as supportive social services, repositioned family planning and women's empowerment programmes are critical to fostering fertility transition. Repositioning family planning as a basic human right, by ensuring universal access to reproductive health services, is essential. Engaging policymakers and planners to consider the linkages between poverty and sexual and reproductive health and rights, and implementing relevant pro-poor policies and programmes that reach out to the disadvantaged and to youth may contribute to economic growth in most Pacific island countries. Education and women's empowerment policies also have a significant impact on family size. More educated parents and empowered women realize the higher opportunity costs with bigger families and are able to make more informed decisions related to contraception so as to be able to

invest more in educating their children and provide them with more opportunities for economic advancement.

Furthermore, immediate measures are needed to ensure that the importance of savings are realized so as not to end up in a situation where an ageing population is uneducated and untrained with little savings upon which to rely (Mason and Lee 2006, Mason 2006, United Nations 2007, United Nations 2008).

II. Pacific Urban Centres: Policy And Perceptions

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A. Introduction

Cultural practices in the Pacific are in transition. Pacific peoples have been defined through traditional practices, as villagers and members of extended families organized around rural agricultural or outer-island inshore fishing endeavours. These subsistence lifestyles of rural or outer-island villages are captured in traditional stories, cultural practices and everyday conversations. These stories conflict with urban realities and are unable to sustain an urban Pacific culture as they fail to recognize everyday urban realities in Pacific cities and towns. The Pacific has not escaped the global phenomenon of rural-to-urban migration and the rapid expansion of urban centres with all of the positive and negative consequences.

This paper draws on recent studies of urbanization in the Pacific to explore urban issues, particularly the growth of underserved informal or squatter settlements, and the lack of debate and policy responses to address the range of urban planning and social concerns arising from the growth of such settlements. The paper calls for greater debate on urban development in the Pacific and for the "voice" of those vulnerable people living in the urban and peri-urban areas of Pacific cities and towns as well as traditional landowners to be included in this debate. Until a region-wide debate on urban development takes place involving a wide range of community, government and traditional stakeholders, a "Pacific-tuned" response cannot be fashioned.

B. Defining urbanization

"Urbanization" is generally understood to refer to the process in which an increasing proportion of the national population migrates from rural areas to live in towns. It is an

almost universal corollary of economic development and in the context of the Pacific usually involves rural villagers and outer islanders migrating to major towns or cities, or one "capital" island. In the larger Pacific island countries there are a number of provincial towns or cities that attract rural and outer-island migrants and they too can be defined as significant urban centres, for example: Mount Hagen, Lae and Madang in Papua New Guinea, in addition to the capital city of Port Moresby; Labasa, Nadi and Lautoka in Fiji, in addition to the capital city of Suva; Luganville in Vanuatu, in addition to Port Vila; and the Auki and Gizo townships in the Solomon Islands, in addition to Honiara.

In other parts of the Pacific—for example, Rarotonga in the Cook Islands, Funafuti in Tuvalu and the atoll islands of Tarawa in Kiribati and Majuro and Ebeye in the Marshall Islands—"urban" pressures have been created as a result of significant movements of people to one particular island. Atoll island countries present particular challenges because the lack of land and encroaching tides lead to the concentration of large numbers of people into very confined areas.

In many Pacific countries urban growth has been so rapid that it is overwhelming and outgrowing the capacity of urban services, not to mention policy and legislative frameworks. As noted in a United Nations report of 1999, "the physical pattern of urban development is often haphazard and environmental degradation is growing" (ESCAP 1999).

Urban informal settlements and urban villages are now firmly established features of the Pacific social and physical landscape. Urban settlers are unlikely to return to the outer islands or rural villages. An Asian Development Bank (ADB) (1998) workshop found that the principal reason cited for migration to urban areas was "to escape an increasingly

difficult economic situation in rural and remote areas". Paradoxically such migration contributes to higher levels of poverty, insecurity and conflict in urban centres while providing a ready labour force for economic development. If urban settlers were to return to outer islands or rural villages, it is unlikely that this would result in an improved standard of living, enhanced economic opportunities or greater security. If urban villages and informal or squatter communities are "fixed" features within cities and towns representing an established urban way of life, then we must understand how they "work".

C. Urban conditions

Large numbers of people have been migrating to towns and cities over recent decades. There are push and pull factors involved in decisions to migrate to the city. Some people are attracted by employment opportunities and services including schools and health facilities, and at the same time they are "pushed" from their home villages because of a lack of land to grow food, a lack of services and the constraining influences and demands of traditional authorities. Because this migration has been occurring over decades there are now second- and third-generation urban Pacific islanders. Their lifestyles are quite different from the more traditional outer-island or rural life. The following brief summaries of urban studies indicate the varied experience and challenges of urban life and patterns of settlement:

- Since the 1980s, Port Vila, the capital city of Vanuatu, has trebled in size (Chung and Hill 2002). In the process, the proportion of urban residents living in communities of substandard housing has grown even faster. These underserviced (i.e. lacking in reticulated water, electricity and other infrastructure) informal

settlements are often organized according to “island of origin”. Mecartney (2000) noted, in a study of a squatter settlement in the peri-urban area of Port Vila, that much population increase is attributable to natural growth rather than immigration, as many squatter communities have been established so long that they now contain second- and third-generation inhabitants

- In the metropolitan area of Suva, the capital city of Fiji, the population living in urban informal settlements is estimated at about 90,000 (Lingam 2007) with more than 730 new households being added to informal settlements each year; this figure is likely to increase to almost 1,300 households annually over the next 15 years (McKinnon et al. 2007). The Household Income and Expenditure Survey report for Fiji in 2002/03 noted that much growth of informal settlements is occurring in the peri-urban areas of towns and cities which have now outgrown their formally defined boundaries. “If the peri-urban settlements grow at 7 per cent … by 2020 almost two thirds of annual urban population growth will be in informal settlements, which will have grown from 120,000 to around 310,000 or 42 per cent of the projected overall urban population … ” (McKinnon et al. 2007)

- Port Moresby, the capital city of Papua New Guinea, grew from 112,000 people in 1980 to 255,000 by 2000 and the number of informal settlements had grown from 34 to 55, with about one settlement being developed for each year. This gives an annual population growth rate of approximately 7.8 per cent, which is about twice the national growth rate (see Chand and Yala 2008)

- According to a recent report, the population of Honiara, the capital city of Solomon Islands, has been growing at an annual average of 6 per cent, nearly twice the national rate of 3.5 per cent. The growth rate of the informal settlement population was recorded at 26 per cent in the three years after 2003, which represented much of the returning population forced from Honiara following the June 2000 coup attempt as well as new arrivals (see Chand and Yala, 2008)

- In Samoa, the Apia urban area grew from 35,489 in 1991 to 38,836 in 2001. However, adding two administrative districts to the east and west of this core urban area gives a population of 60,872, or 35 per cent of the 2001 national population. If all of the northwest of the main island of Upolu is taken into account, then this population, including Apia, increases to 52 per cent (2001) of the total population of Samoa (Sagapolutele, Sapatu and Jones 2003). Much of this population commutes to the city each day to work, study or shop

- The total land area of Jenrok Village on Majuro Atoll, the capital of the Marshall Islands, is .065 km^2 with 215 households averaging 9.47 persons per household and occupying 95 per cent of the land. The estimated population of Jenrok Village is 1,847 persons with 65 per cent under the age of 25 years. Jenrok's population density is equivalent to approximately 33,950 persons per square kilometre. Less than half of the households are connected to reticulated water supply, with reported high rates of water-borne diseases including diarrhoea and typhoid

(Chutaro 2004) Ebeye Island, in Kwajalein Atoll, is the most densely populated island in the Marshall Islands, where 9,345 people live on only 0.23 km^2. The lack of land for the disposal of solid waste is a pressing issue on both atolls

- Betio, which is the capital of Kiribati, on the atoll island of Tarawa, has a population of 12,509 people on 1.45 km^2. Approximately 40 per cent of households are connected to the sewage system, which pumps raw sewage directly into the sea. Those not connected use either pit latrines, small septic tanks or the beach (Butcher-Gollach et al. 2007)

- In 1973, Funafuti, the capital island of Tuvalu, had 14.8 per cent of the country's total population and in 2002 it had approximately 47 per cent, with a population density of approximately 1,606 people per km^2; in 1973 there were less than 893 people per km^2 (Funafuti is approximately 2.79 km^2). This is creating a considerable and clearly observable strain on land resources as Funafuti struggles to (a) provide sufficient land for housing, (b) dispose of waste and (c) maintain infrastructure (UNICEF and Tuvalu 1996)

Although the realities of city and town life may undermine traditional ties and challenge social cohesion, they offer new opportunities for economic and social advancement. However, many families pay a high price for such advancement in the form of poor housing, cramped and overcrowded living conditions, lack of security and

sometimes poor access to key services such as water and sanitation as the above case studies illustrate.

D. Urban living

"Urban living is generally associated with an increased dependence on cash income; weakened informal safety nets; greater participation of women in the labour force and its subsequent implications on child care; changes in lifestyle, diet and exercise patterns; greater overall access to public services; increased exposure to environmental contamination; and adherence to new, and often nonexistent property rights" (Sverdlov 2007, p. 130).

Urban living represents a significant departure from accepted rural lifestyles, challenging taken-for-granted traditions and practices. The "land" to which all Pacific people so closely identify is part of or within "our village" or "our island". It is this rural or outer-island context, attachment to land and family ties over generations which defines Pacific people and is bound up in beliefs about who they are and where they belong. Urban community lifestyles are not accepted as traditional features on the social and cultural landscape. This phenomenon is recognized in Haberkorn's (2006) report where he notes: "The continued perception of Pacific people as primarily rural dwellers is factually correct, but in wider political and development terms a myth, lulling national policymakers and their international development partners into a false sense of security …"

There is little awareness of what it really means to live in these heterogeneous cities and towns and how policy might address community development and city or town management. This lack of recognition means that the subtle variations of urban living, including the many variations of informal or squatter settlements, are not discussed in the broader context of the rapid and significant social change taking place in many Pacific island countries, nor is there much in the way of understanding or debate on how they are contributing to environmental degradation, security concerns and conflict. The urban communities of the Pacific need to be better understood so that a new Pacific identity can be shaped.

Urbanization as a dynamic and complex evolutionary part of social development in the Pacific is not well understood. Pacific cities are not recognized as an integral part of the social or cultural landscape. The physical and cultural constraints to making land available for urban growth mean that cities do not necessarily develop as they do in other parts of the world and, in some cases, they become the locus of social tensions and conflict. By disregarding an urban way of life as a legitimate cultural expression, or by oversimplifying urban life as some kind of temporary or easily reversible transplantation of life from village to town, the realities of everyday life for urban inhabitants are obscured and the compulsion to address pressing infrastructure and social concerns dissipates.

1. Informal urban settlements

In the past, rural or outer-island migrants to the newly forming towns and cities often experienced restricted entry or were viewed as temporary residents who would return to

the village having earned some cash. Essentially it was colonial powers that determined the creation and character of urban centres, who lived in these centres and how the centres were administered, sometimes forcibly removing newly arrived outer islanders (Haberkorn 1990).

Some political leaders today believe that urban settlers can, and should, return to their village or outer island in the belief that the traditional way of life should prevail and that there is village and "family land" to which urban dwellers can return. These responses are out of line with the realities of modern urban living. In recent decades many urban populations have been growing at nearly twice the rate of national populations. By mid-2006, according to the Secretariat of the Pacific Community, 2.2 million of the region's population was estimated to live in the urban areas of the major cities and towns, representing one in every four Pacific islanders. This increasing pressure on urban land has created the phenomenon of the underserved, informal, or squatter, settlements within Pacific cities and towns. Furthermore, suburbs are expanding to swallow up villages that were once outside city boundaries, and villages that were once rural are now dormitory suburbs for city commuters. Political as well as traditional leaders find it difficult to address these issues when they hold to the view that such settlements are temporary, that people will return to where they "belong" and that the traditional villages which have become urbanized can continue to function in the way in which they always have.

Furthermore, the old post-colonial administrative models for local and provincial governments appear to be failing. For example, the municipal councils of Port Vila, Honiara and Suva have all been suspended and/or dissolved in recent years, requiring the establishment of interim administrations. Similarly, the Majuro Atoll local government was said to be "a dysfunctional entity which is currently financially insolvent and unable to pay its debts" (*Marshall Islands Journal* 2007). In most other parts of the Pacific, local and provincial governments do not have enough resources to address the needs of rapidly growing towns.

Underserviced squatter or informal settlements are now common in cities and major towns and are predominantly comprised of migrants from outer islands or rural areas. Such settlements can be defined as residential areas which have developed without formal legal claims to the land and/or permission from the concerned authorities to build. In many parts of Asia and the Pacific, a landowner may provide land for rent at a nominal fee to a family or families through an informal or quasi-legal arrangement, take no cognizance of land-use provisions and make no or few arrangements for the provision of basic services (e.g. solid waste disposal, water, sanitation or electricity). In the case of Tuvalu the land is often "given" to outer islanders with no charge for settlement apart from the expectation of in-kind or cultural contributions for major community events such as weddings and funerals. In some Pacific island cities and towns, new settlers are encouraged to settle particular areas in order to build political constituencies. On the other hand, squatter communities can become political footballs when traditional and political leaders call for urban squatter settlers to return to their home village, and are

forcibly removed by police in towns such as Lae and Madang as well as Port Moresby (*Fiji Times* 2007) and peri-urban areas of Suva (*Fiji Times* 2008). There are also informal settlements which have existed for many decades in some cities, occupied by people relocated from other Pacific island countries by colonial powers, e.g. i-Kiribati in Solomon Islands and Pohnpei, Federated States of Micronesia; and Solomon Islanders in Suva and Apia. A Solomon Islands community in Suva was reported as being forced to relocate by the local authorities. One resident noted that "this is the second time we've been told to move and without any financial help from the Government of the day" (*Fiji Times* 2009). As a result of their illegal or semi-legal status, they lack adequate or minimum-level services and infrastructure such as solid waste disposal, sanitation, water supply, electricity and road access and are often the subject of eviction notices (Srinivas 2006).

Family, friends, neighbours and community organizations are important for survival, providing support and resources in times of need. Individuals and families operating as groups can exercise greater bargaining power and control with authorities. Organized communities are better able to negotiate with government, custom landowners and other actors as well as address common threats or needs, such as the threat of eviction or the need for water supply. However, in the Pacific context there is a lack of social organization to assist vulnerable groups to establish more acceptable living conditions. Although community studies of informal settlements have found established social networks, there is no doubt that the social fabric holding these communities together is strained, particularly because these communities occupy a legal void; they are subject to

eviction without notice both by public authorities and traditional landowners, even though these same authorities were often complicit in the establishment of the communities in the first place (Wilkinson 2003)

2. Understanding urban challenges

While community and political leaders wring their hands over rising urban crime rates and drug use and express concern over sexually transmitted infections and HIV/AIDS, there is little demonstrated understanding, nor do they see how urban communities are developing. Pictures have a greater impact than statistics, but leaders are not looking and few pictures are being painted or photographs taken in the informal settlements of the Pacific. Pacific city and town boundaries lack definition and therefore urban populations are difficult to count; there is a lack of information on the extent to which nearby villages and settlements have been absorbed, as well as a lack of awareness that peri-urban areas are growing at twice the rate of urban areas in many countries (Chung and Hill 2002, McKinnon et al. 2007, page 5). There is a need to articulate the "lived experience" over generations from within informal urban settlements or urban villages including, for example, commuting costs to families, especially of children attending school.

Community studies of informal settlements (Chung and Hill 2002, ESCAP 2002 and 2003, Mecartney 2000, and Naupa 2003) have found densely populated settlements with well established social networks, occupying custom (or native) land, with a significant number in Suva occupying public land; most had informal arrangements with the land owners to occupy the land. There was usually no provision of, nor any legal obligation on

the part of landlords to provide basic waste collection, sanitation, water and other services. Although households usually had access to water, sources were often contaminated and the quality and ease of access varied, with some having informal water connections to neighbouring houses, and some purchasing buckets or drums of water, paying higher rates than through the publicly available supply. Nearby rivers tended to be polluted from rubbish, agricultural run-off and pit latrines near streams and rivers. Communities reported various illnesses (diarrhoea, scabies, etc.) arising from polluted water supplies and from water collected in rusted containers.

Settlements were unplanned, sometimes adjacent to official or unofficial rubbish dumps, within flood-prone, poorly drained or coastal areas subject to tidal surges; privacy and safe open playing areas for children were limited; security, particularly for children travelling to and from school, was a concern to parents; houses were usually built by the occupants using materials from a previous house that had been demolished and moved to its new location; some had wooden floors, others, dirt. Although most built their own shelter, there was a small but thriving rental market. Renters, however, tended to be worse off, with shared latrines and washing facilities and less money for food. Households tended to be larger, sometimes including extended families of up to 20 or more people. More often than not there was at least one member of the household with some kind of paid employment supporting others. For many households, income was supplemented by women selling food or crafts in the local market or from roadside stalls, however, a significant number were earning wages insufficient to meet daily food and other needs.

Not only are the local governance institutions closest to these communities not consulting or listening to communities, but they are not in many cases addressing the most basic planning and social development needs. The physical planning models, roads, footpaths, drains, overhead wires, schools, clinics and shopping centres are, to all intents and purposes, based on developed world models and delivered in Western European ways with little regard to social arrangements, cultures and lifestyles. The informal settlements that have grown within city and town boundaries and in the peri-urban areas do not meet acceptable standards for the supply of essential services and the provision of living conditions. There is an urban policy and management void that must be filled and informed by the explication of the experience of urban dwellers.

In describing a University of the South Pacific meeting bringing together government departments to discuss urban housing, Storey (2006) noted not only a lack of community consultation but also the existence of a panoply of initiatives divided among ministries with limited knowledge and interaction between them. Narayan et al. (2000b, p. 232) note that "poor people's experiences call out for the reform of all institutions engaged in serving them … In an era of rapid decentralization, poor people's low ratings of local government in urban and rural areas should give pause".

Poverty in this context refers not only to income, inadequate access to infrastructure and housing, but also to the lack of legal rights in respect of rental arrangements or tenure of the land. Urban and peri-urban squatters and informal settlers, because of economic

circumstances as well as traditional arrangements, do not have the security they need to invest in housing and public services. Confidence that they are living within and are protected by the law needs to be ensured.

3. Framing an urban response

"Our land," "our village" and "our island" are still central to the way in which Pacific cultures are defined. This does not mean urban inhabitants must return to their land, village or island, but that their urban experience should be articulated in new terms. This calls for an approach involving and engaging all stakeholders in reframing the urban discourse and developing a new policy approach. In April 2007, the second Pacific Regional Workshop on Urban Management (Commonwealth Local Government Forum, ESCAP and PIFS 2007) brought together Pacific planners and urban management experts who agreed on a range of recommendations addressing institutional arrangements for planning and urban management, the urban environment, shelter, security, urban quality of life and improving livelihoods within urban areas in order to reframe and invigorate policy debate and contribute to developing an understandable and coherent regional Pacific discourse on urban living.

Within the context of renewing and strengthening institutional frameworks for urban management and planning, the workshop called for local and central governments to recognize and engage with local communities, whether informal or squatter communities or traditional urban villages, to address the availability of land and affordable housing, social services, infrastructure and governance needs. This will require strengthening local government in particular, improving information and data, including environmental

information on hazards, and creating a greater awareness of the needs of urban communities among decision makers, particularly of those living in flood-prone, polluted and poorly serviced locations, and it will present new challenges to traditional leadership.

The new approach to urban management, therefore, calls for the formation of community support groups within underserved squatter and informal communities to articulate their experience, build social cohesion, strengthen community-based safety nets, mitigate hardship and poverty, and empower vulnerable groups by improving the awareness of their rights and opportunities. There is also evidence to suggest that communities in the Pacific are eager to participate in the decision-making and planning processes affecting their living conditions (Naupa 2003). The participants of the Second Pacific Regional Workshop on Urban Management agreed that open discussions among all stakeholders, including traditional landowners and community stakeholders, are fundamental to reaching long-term agreements on minimum conditions for shelter, density, water, waste management, sanitation and social services, as well as on the availability of land for urban development. Governments, in collaboration with civil society, should convene national land summits to develop a consensus on land management, especially in urban and peri-urban areas, as well as establish land management task forces and land registration mechanisms. The workshop recognized that there is a need for (a) greater engagement with the private sector to develop mechanisms that facilitate access by low-income groups to formal financial institutions for saving and borrowing for housing as well as to improve access to rental housing by, among other

things, increasing rental stock and (b) support for informal sector activities, particularly for the most vulnerable people, including women, youth and persons with disabilities.

E. Conclusion

The combined forces of migration and high population growth rates are feeding the rapid growth of Pacific towns and cities. Much of this growth is likely to occur in peri-urban poor areas. In some atoll countries there is no further physical space to accommodate urban growth and the concomitant waste. Although this is not a recent development, but something that has been growing over decades, urban policy has not been a priority for either local or central government and traditional authorities pay little attention to the social and economic consequences of informal settlement on urban or peri-urban land. Politicians and traditional leaders have avoided urban management issues and in so doing they have ensured that urban squatters and informal settlers remain socially and politically marginalized. This has been exacerbated by traditional land owners requiring informal dwellers to construct temporary housing and, from time to time, arbitrarily evicting settlers.

Only when those living in the underserved urban, peri-urban and overcrowded settlements of the Pacific are given the opportunity to give “voice” to their lives will adequate institutional responses be fashioned. New traditions form within dynamic cultures, as can be seen in the cities of metropolitan countries to which Pacific people have migrated. The expansion of Pacific island cultures to include both urban as well as rural and outer-island ways of life is a positive development. The inclusive Pacific city or

town requires open dialogue involving community members, traditional authorities, land owners, and local, provincial and central government based around everyday community issues. In this way all can participate in and benefit from the opportunities urban centres offer. Although the social fabric of these urban communities is under stress, it is the sense of community that provides the foundation for people to expand and maintain their livelihoods and meet daily challenges.

Urban life is not yet part of tradition and everyday conversation, and is viewed as somehow “un-Pacific”; there has been little in the way of urban conceptual development from within a distinctly Pacific context, hence the persistent failure over decades to recognize or embrace the emergence of a significant new social entity, the Pacific city, which even today is not accorded social or cultural legitimacy. As suggested in the 2007 Pacific urban workshop, a new discourse must be developed around which communities can be mobilized, policy shaped and service provision responses developed. Through the articulation of their lived experience community members can contribute to the reconceptualization of urban policy and a reconfigured urban governance.

III. The Threats And Opportunities Of Higher Food Prices In The Pacific

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A. Introduction

In the wake of soaring global food prices during 2004-2008, the performance of the agriculture sector in developing countries came under renewed scrutiny. The onset of the financial crisis and subsequent decline in food prices shifted attention away from agriculture again, but have we heeded the warnings about the policies that need to be put in place to boost agricultural productivity?

A number of structural factors contributed to the sharp increases in food prices, including:

- The diversion of grains into biofuels production, especially in the United States of America
- The shift in consumption habits in developing countries towards more meat and dairy products, which require grain as livestock feed
- Poor harvests in important producing countries such as Australia[1]

Some of these factors are temporary, but longer-term factors, such as population growth, income growth resulting in changing consumption habits and climate change, will continue to impact the agriculture sector.

[1] More information regarding the causes of the food price increases is contained in the reports included in the list of references.

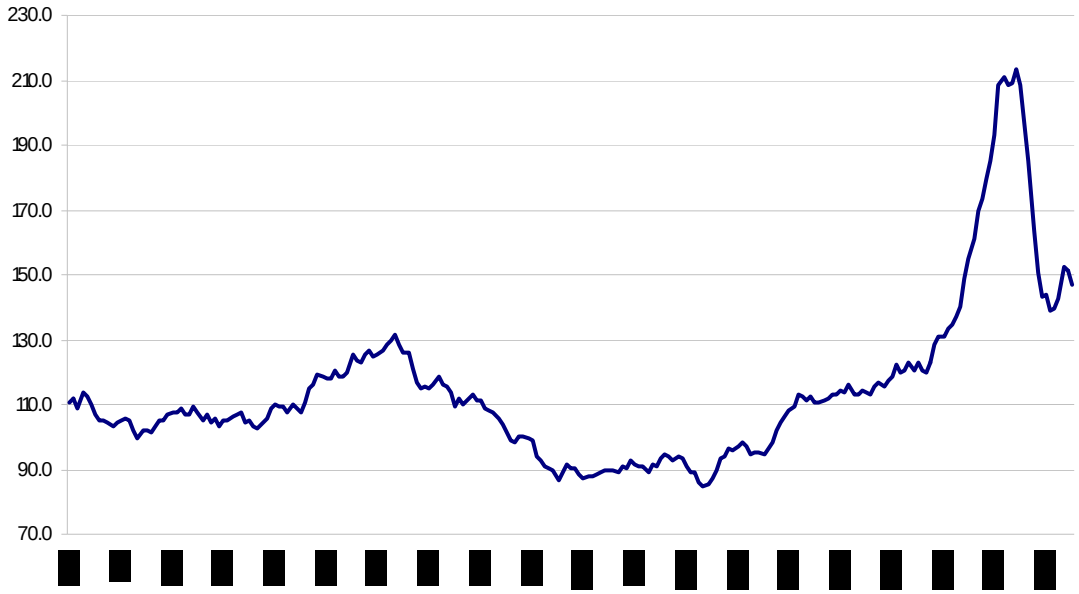
While prices are still significantly below the peak levels recorded in mid-2008, with the first signs of the bottoming out of the global economy rising prices may again become a pressing concern.

If food prices continue their advance upwards, would this be bad news for everyone? Higher prices impose costs on consumers and worsen balance of payment deficits in importing countries, but do they also represent opportunities for producers? This paper explores whether the agricultural sector in the Pacific could benefit from the rising prices of food.

Price volatility is not uncommon in agricultural markets. Prior to the recent food price increases, the overall trend in agricultural commodity prices had been downwards. What is noteworthy about the recent increases is the extent to which agricultural commodities and oil prices have become increasingly correlated. Figure III-1 and Figure III-2 illustrate the sharp increases in food prices experienced between 2004 and 2008 and their subsequent sharp retreat, with the exception of sugar, which recorded all-time high levels in the summer of 2009.

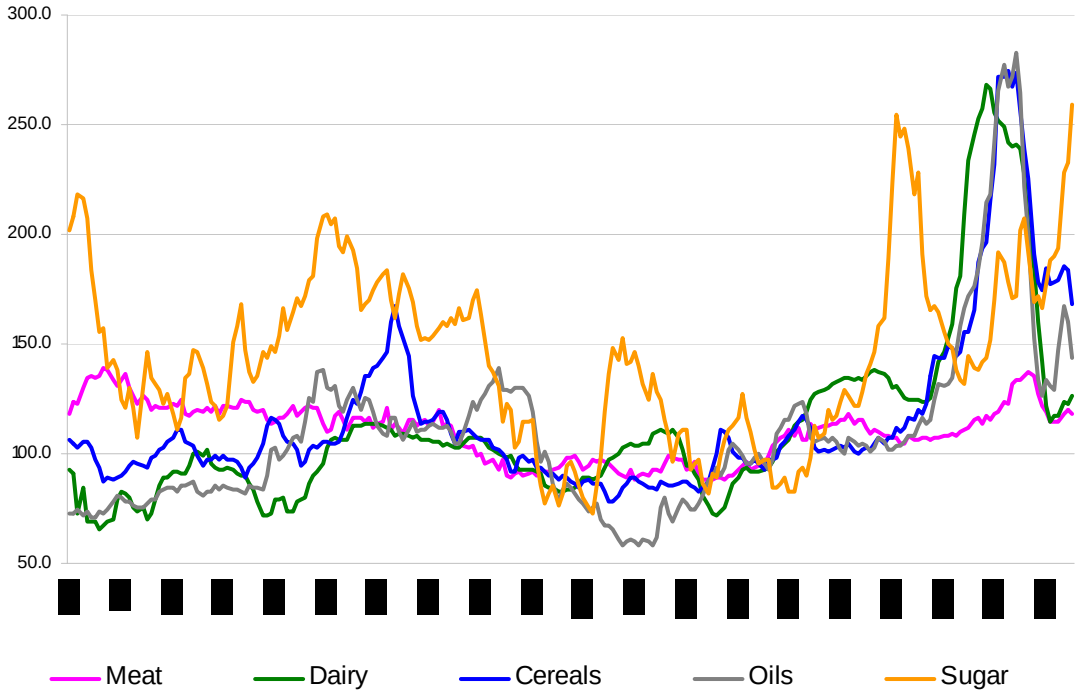
Pacific island developing countries and territories rely heavily on imported food and fuel. Higher prices of imported food are compounded by the increased costs of transporting these imports to isolated Pacific islands. At a macro level this leads to adverse changes in their terms of trade and deteriorating balance of payments, undermining economic stability and fuelling inflation. In Fiji and Samoa, the import bills for wheat and flour increased around 45 per cent between 2005 and 2007 (Table III-1).

Figure III-1. Monthly food price index of the Food and Agriculture Organization of the United Nations, January 1990 – July 2009 (2002-2004=100)



Source: Food and Agriculture Organization of the United Nations.

Figure III-2. Monthly price indices of the Food and Agriculture Organization of the United Nations for five basic food commodities, January 1990 – July 2009 (2002-2004=100)



Source: Food and Agriculture Organization of the United Nations.

Table III-1. Observed increases in the prices of rice and wheat/flour

	Fiji		*Samoa*	
	Rice	*Wheat*	*Rice*	*Flour*
Price increase between 2005 and 2007, average unit value (F$/WS$/kg) (percentage)	246	111	18 (retail)	n/a
Total value of imports 2005 (in thousand F$/WS$)	21,944	46,979	8,097	6,553
Total value of imports 2007 (in thousand F$/WS$)	24,553	68,225	9,072	9,650
Increase in total import bill between 2005 and 2007 (percentage)	12	45	12	47

Source: Author's calculations from data supplied by the Fiji Islands Bureau of Statistics and the Ministry of Finance of the Government of Samoa.

Note: All values are cost, insurance and freight apart from the retail unit values for rice in Samoa.

At a micro level, households, in particular low-income households in urban areas that tend to spend a greater proportion of their cash income on food, face difficult trade-offs in making ends meet.

Many households are fortunate to have access to communally owned land and the Pacific countries are blessed with a diversity of staples (sweet potato, taro, yams, cassava, and breadfruit) which, in theory, can substitute for the more expensive imported rice and wheat. However, efforts to increase the productivity of the agriculture sector in Pacific island economies over the last few decades have largely been unsuccessful (Fleming 2007). Agriculture ministries are underfunded and investment in research and development is inadequate. The ability of producers to respond to the incentives of higher prices is constrained by a number of factors. Governments need to prioritize addressing these supply-side constraints to enable producers to increase their returns in response to increasing prices.

B. Reliance on imports

The availability of diverse, traditional staples, the access of most Pacific islanders to land and the relative remoteness of the Pacific island developing countries, which results in high shipping costs for traded products, are all factors that would tend to support the domestic agricultural sector.

1. What has led to the reliance on imports?

The importance of the agricultural sector varies widely across the Pacific. The Western Melanesian countries (Papua New Guinea, Solomon Islands and Vanuatu) have sufficient land and fertile soils. Agriculture provides the main source of employment and income. Many households in these countries were benefiting from the previous boom in commodity prices. In Papua New Guinea an estimated 670,000 households (3.4 million people and over 50 per cent of the population) are involved in tree crop industries and were benefiting from significant increases in farm gate prices for cocoa and palm oil (Bourke et al. 2008).

At the other end of the spectrum, the atoll countries (Kiribati, the Marshall Islands and Tuvalu) are hindered by a lack of land and water, poor soils and high population density. Nevertheless their limited agricultural production can provide an important source of cash income and can contribute to food security. However, a reliance on imports is inevitable for these countries if consumers want a diet that consists of more than fish, swamp taro, breadfruit and coconuts. Changing consumption habits have also driven an increasing reliance on imported food in most other Pacific countries. Increased

rural-urban drift and remittances, both external and within countries, are also contributing to these changes. Increased consumer demand for imported foods, such as rice, flour and noodles, is a reflection not only of their price but also their convenience, both in terms of preparation and storage, compared to traditional staples such as taro, sweet potatoes, yams and breadfruit. Consumption habits once entrenched are difficult to change, and increasing the consumption of traditional staples may not be feasible for some countries even in the face of rising prices. This is especially true for those places where domestic agricultural production is of limited importance, such as American Samoa, Guam, the Marshall Islands, the Northern Mariana Islands and Nauru.[2]

C. What are the impacts of higher food prices?

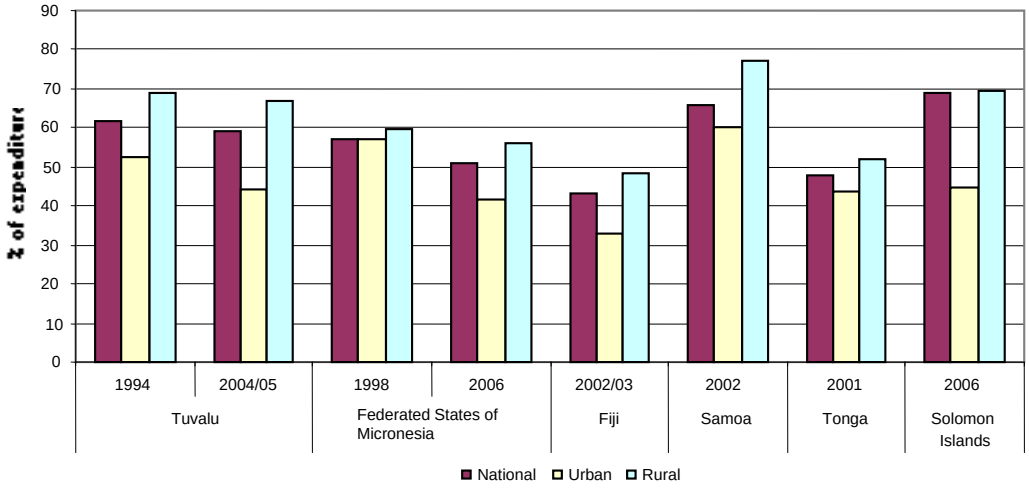
The rising prices of food affect the poor directly and indirectly. Producers benefit from higher prices, provided price increases are reflected in the markets for local produce as consumers switch towards them as substitutes for imported food. Consumers facing higher prices have to find ways of balancing their household budgets. A switch to more locally grown food could result in higher incomes for producers and health improvements for consumers. Increased consumption of imported food, which tends to be nutritionally inferior to local staples, is a major contributor to the high rates of obesity, heart disease and diabetes experienced in the region. However, if consumers respond by switching to cheaper, lower quality food items, this could lead to a further deterioration in diets. If consumers maintain consumption levels they may need to reduce expenditure on other

[2] McGregor (2006) provides a useful categorization of Pacific island countries and territories and the relative importance of agriculture to each group.

areas such as school fees or health care, which would adversely impact household well-being and opportunities.

The poor are also affected indirectly through the macrolevel impacts. Increasing food and fuel costs result in higher production costs across the economy. This could lead to a loss of jobs in some sectors as business struggle to remain viable. Higher prices also result in lower real wages and reduced living standards. In general, the poorest members of society spend a greater proportion of their income on food. It is estimated that this proportion is as high as 70 per cent in some countries (see Figure III-3). The worst hit will be those households with limited options to absorb the higher prices. Households in atoll countries are particularly at risk, as they have limited scope for increasing production, are heavily dependent on imports and have insufficient export revenues to finance these imports. Households in South Tarawa import over 60 per cent of their food requirements. Elsewhere, low-income households in urban areas are particularly vulnerable as they have limited access to land and tend to be more dependent on imported food.

Figure III-3. Proportion of food in total expenditure of low-income households



Source: United Nations Development Programme Pacific Centre, based on data from national household income and expenditure surveys.

Note: "Low-income households" represent those in the lower three income deciles.

Subsistence farmers, who have relied less on markets in the past due to poor infrastructure or unreliable transport, may be better equipped to deal with rising food prices as they are more self-sufficient and do not rely on imported food. For many growers in the Papua New Guinea highlands who have limited access to external markets and negligible cash incomes, high food prices may not alter their daily struggle for survival. They were unable to afford imported produce even before the price increases. Smallholder agriculture in the Pacific has proven to be fairly resilient to external shocks in the past, for example, civil unrest in Solomon Islands did not result in food shortage problems.

The customary land-ownership structure of most countries and strong family and cultural norms of giving and sharing in the Pacific provide an important safety net for the most vulnerable in many communities. These traditional safety nets are weakening given the growing importance of the cash economy and the increase in urbanization.

D. Challenges in boosting agriculture

On paper, there appears to be significant potential for Pacific island developing economies to increase the supply of domestic staples to the urban centres, particularly in the larger countries. Per capita rice consumption in the Solomon Islands, for example, is on a par with that of Fiji, despite the large population of Indo-Fijians who consume rice as their main staple (see Table III-2).

Higher food prices can incentivize domestic production and increase farmer incomes, provided the higher prices feed through into local markets as demand for traditional staples increases. The transmission of higher prices can be muted by price controls, which are widely used in the Pacific (ADB 2008b). Transport costs tend to make up a significant proportion of overall input costs and in theory could limit the impact of rising import prices on retail prices, but the increased correlation of rising food and oil prices means that rising shipping costs and food prices tend to go hand in hand and reinforce each other. While price controls on imported food may dampen the transmission of higher global prices to local markets, boosting agricultural productivity in the Pacific requires more than just a price shift that favours domestic production. Import substitution opportunities existed prior to the global food price hike, yet the performance of the

agricultural sector in most Pacific island developing economies has been poor over recent decades (Fleming, 2007).

Table III-2. Contribution of rice and traditional staples to diets

Pacific island country	*Per capita consumption rice (in kg/year, 2004)*	*Contribution of rice and wheat to overall energy intake (percentage)*	*Contribution of traditional staples to overall energy intake (percentage)*
Fiji	62	34	20
Papua New Guinea	27	14	68
Samoa	25	n/a	n/a
Solomon Islands	57	21	65
Tuvalu	64	n/a	n/a

Sources: AusAID Solomon Islands Smallholder Study, Fiji National Nutrition Survey, national trade statistics.

1. What are the key limiting factors for output growth?

Inadequate storage and marketing facilities and poor rural infrastructure constrain the ability of growers to respond to demand for local produce. In Papua New Guinea and Solomon Islands, growers are hampered by their distance from the main markets in Port Moresby and Honiara and by costly and unreliable transport infrastructure. In smaller countries, outer islands struggle to supply the main urban centres for the same reason.

Poor communications infrastructure can hinder the development of commercial agriculture. Growers may lack timely information on the market prices necessary for planning production appropriately. Supply chains will be affected if different actors along the supply chain (growers, middlemen, sellers, exporters) face difficulties in communicating with each other. The increase in mobile phone coverage in several countries in recent years is already helping to overcome some of these communication difficulties.

Communal land ownership, while providing an important safety net in times of crisis, can also act as a disincentive to commercial agriculture. It affects the ability of growers to access credit as communal land can generally not be used as collateral with financing institutions. The relationship of Pacific islanders to their land and strong cultural norms of giving and sharing also make it difficult for enterprising growers to separate their business from their community obligations, dampening the incentives to engage in commercial activities. The land tenure system may also discourage investments that rely on relatively large volumes of produce, and thus require land of sufficient size. Limited output may render such investments economically unviable.

Remittances, another important safety net and a significant contributor to gross domestic product in several countries, for example, Fiji, Samoa, Tonga and Tuvalu, can also affect the incentives to engage in agricultural activities by pushing up the price at which people are willing to supply labour and increasing the capacity of households to buy imported food. In other words, why would a Tuvaluan engage in cutting copra earning him a few dollars a day when his son is sending him $100 a month from New Zealand? It is not uncommon for Pacific islanders to be content earning sufficient cash income to cover expenses such as school fees, medical costs, church contributions and community obligations. Beyond this income level, even in the face of rising prices and incomes, people may be unwilling to supply more labour given the value they place on their leisure time. An increase in prices may actually result in a decrease in labour supply as target incomes are reached earlier.

2. What is being done? Existing policies and programmes

Given the small size of their economies, Pacific island developing countries and territories are price takers for internationally traded commodities. In the short term the options for responding to an abrupt rise in food prices include reducing duty on basic food items and providing those most at risk with immediate relief, including the use of targeted cash transfers. Reductions in duties occurred in Fiji as a result of the recent food and fuel crisis. The tax threshold has also been increased, although this is unlikely to benefit the most vulnerable in society as they generally fell below the previous threshold and thus did not pay taxes. The value-added tax was removed from local eggs in an effort to maintain protein consumption. The Ministry of Primary Industries of Fiji has also launched a programme entitled "Plant 5 a day" in an effort to encourage more backyard gardening, but the urban poor tend to have little or no access to land.

Concerns were expressed in Papua New Guinea about the lack of general understanding of the causes of the food and fuel crisis and the misperception that the Government was to blame for rising prices. The Attorney-General, Allan Marat, even warned of impending civil unrest if the Government did not immediately intervene to clear confusions raging over fuel price increases and the high cost of living ("Marat Warns on Civil Unrest", *Post Courier*, 2 June 2008). An educational campaign and temporary tax breaks were advocated to ease tensions.

Domestic agricultural policies in some countries (Fiji, Papua New Guinea and Solomon Islands) have actively promoted, but with limited success, the production of rice

to substitute for imports, which only serves to entrench consumption habits. Rather than trying to compete with larger Asian producers, resources might be better directed to supporting traditional staples as a substitute for rice. Kiribati provides subsidies for rice given its importance to food security. Such interventions need to carefully weigh the benefits associated with cheaper food with the dampened incentives for domestic producers that they foster. Tarawa, the main population centre of Kiribati, has insufficient breadfruit to supply the densely populated island, yet other islands have to dispose of rotting breadfruit because they have abundance but no means of transporting it to Tarawa (John Konam, SPC, personal communication, September 2008, Suva).

The current climate provides us with an opportunity to reflect on the development of agriculture in the region and prioritize the key constraints to increasing productivity. In 2008, President Manny Mori of the Federated States of Micronesia stated that “for too long our children have been fed on rice as a staple food because of the convenience of preparation and storage. We have neglected our responsibility and even contributed to their lower health standards by failing to teach them to appreciate the natural food bounty of our islands” (Micronesia (Federated States of) 2008).

For decades, declining investment in agricultural research, extension services and infrastructure has been identified as a major constraint to the expansion of domestic agricultural production and improvement in productivity. Limited access to land and credit are other significant constraints. These well recognized supply-side constraints

must be addressed before price incentives can play any major role in increasing agricultural productivity in the region.

Box III-1. Responding to higher prices: the importance of infrastructure.

The contrasting fortunes of palm oil and coffee in Papua New Guinea are instructive. Between 2001 and 2005 international palm oil prices grew by more than 60 per cent and coffee prices by more than 70 per cent. Palm oil production in Papua New Guinea increased by 20 per cent over the same time period whereas coffee production fell, also by 20 per cent. Indeed, the country's coffee production was no greater in 2004 than it was in 1990. A large part of the difference between the performance of the two crops in Papua New Guinea is infrastructure and institutions. Washed-out roads and poor law and order have prevented the highland coffee growers from getting to market. But the private sector model for palm oil (with a central company responsible for buying from smallholders) and the relatively good access palm oil companies have to ports enable farmers to respond to price signals.

Source: Australian Agency for International Development (AusAID) (2008) *Pacific Economic Survey 2008* (Canberra, AusAID), pp 24-25.

3. Where are the opportunities?

Given the diversity of the agricultural sectors in the Pacific, the opportunities for increased domestic production are equally varied. Government policies must therefore be targeted at the precise conditions and constraints of the domestic sector.

For countries with sizeable tourism industries, the demand of hotels and restaurants for food represents a significant possibility for import substitution, and could be targeted by the growers of local food crops. The main constraint to satisfying this demand is meeting the standards of consistent quality and regular supplies that the industry demands. The model adopted by fruit and vegetable exporters in Fiji has been successful at meeting the standards demanded by export markets in Australia and New Zealand.

This market is still small, but the lessons that can be drawn from the exporters' experiences can also apply to the domestic market.

The horticultural export market in Fiji is driven largely by the private sector, with exporters providing most of the extension services of providing growers with information on growing techniques, pest management, appropriate technologies and quality assurance. In some cases exporters are also supplying growers directly with inputs, such as planting material, and equipment, such as post-harvest handling trays, overcoming some of the constraints resulting from a lack of access to credit. This has resulted in a small but fast growing smallholder horticultural sector which generated revenues of over 4 million Fiji dollars in 2007. The oil palm industry in Papua New Guinea also uses the private sector to deliver extension services to contracted smallholders.

Given the limited available resources for extension services in the Pacific, alternative models that can provide these services should be examined. In addition to the private sector, non-governmental organizations can also provide growers with the extension services required. In Samoa, Women in Business Development Inc. provides support to a network of coconut oil producers and has recently begun exporting to the Body Shop in the United Kingdom of Great Britain and Northern Ireland.

Opportunities for significant export volumes of agricultural products are constrained by the size of countries' agricultural sectors and their inability to achieve economies of scale in production given the relatively small size of their economies. Niche products and

value-adding represent opportunities that should be further exploited. Organic vanilla and other spices are being successfully exported from Fiji and Vanuatu. Indigenous nuts have been commercialized in Vanuatu and have been identified as having potential to replicate Hawaii's success with the macadamia nut.[3] The large Pacific island communities in New Zealand, Australia and the United States also represent opportunities for exporting traditional crops. Fiji profited from the collapse of the taro exports of Samoa following the outbreak of taro leaf blight and the industry generated 24 million Fiji dollars in export revenue in 2007, exporting the Tausala ni Samoa taro variety to global Pacific island communities.

The ability to substitute domestic staples for imported foods depends on consumer preferences. Governments can influence preferences with advocacy campaigns that educate the public on the nutritional value of locally grown food and incorporate specific programmes into school curricula. A holistic approach to boosting agricultural productivity needs to be developed that involves the health, education and agriculture ministries.

Governments have limited resources and should therefore ensure that resources are not directed at activities that can be undertaken by the private sector. Instead, Government should focus on providing the necessary infrastructure and regulatory frameworks to nurture a strong private sector capable of responding to the incentives provided by higher food prices.

[3] Differing, of course, in the sense that the macadamia is not indigenous to Hawaii.

4. Tackling constraints

i) Improve marketing and infrastructure, including storage facilities and roads

One of the biggest constraints to increased agricultural production is the lack of adequate infrastructure to support the sector. The highlands of Papua New Guinea have very favourable agro-climatic conditions, but transporting produce from the interior to the main urban markets is often not viable given the limited shelf life of the produce and the costs associated with getting it to market due to poor roads and security concerns. Investing in storage facilities and road infrastructure will assist in reducing production costs and increasing returns to domestic production.

ii) Improve extension, agricultural information availability and dissemination

Extension services in the Pacific have been deprived of adequate resources for decades. The result is a lack of information for growers and enterprises on production techniques and technologies, pest and disease management and marketing strategies, leading to missed opportunities for domestic producers.

Greater involvement of the private sector and non-governmental organizations in providing extension services to agricultural enterprises can help to boost services in the absence of additional government expenditure. Governments can assist by concentrating on disseminating up-to-date information on research, planting materials, technologies and market price information that can be used by extension services.

There is a need to find innovative ways of presenting relevant market information and making it available to producers. The absence of good information hampers good decision-making and has previously resulted in the production of products for which there is no viable market. Close monitoring of the prices of domestic staples and effective dissemination of this information to producers to trigger supply responses are necessary to ensure that farmers capitalize on the opportunities presented and that the impact on consumers is minimized. The increasing use of mobile phones in many countries presents an opportunity to use new technology to communicate relevant market information to producers more quickly.

iii) Improve access to inputs

Access to planting materials, fertilizers and land represent significant constraints to increased agriculture production in the Pacific. Direct subsidies have tended to make growers reliant on government to supply some of these materials, which tends to crowd out private investment in these sectors. The commercialization of planting-material producers should be explored for certain products where producers have an incentive to obtain quality planting material and are willing to pay for it. For example, the availability of Hawaiian Solo Papaya seeds has been highlighted as a constraint by Fijian exporters.

The trade in improved planting material which can assist in increasing yields, resisting pests and adapting to climate change is often constrained by quarantine requirements. Governments should seek expert advice on gaining access to improved planting materials which can be imported safely.

Governments should concentrate resources on support services (public goods) that are unlikely to be provided by the private sector. Resources for investment in agricultural research that leads to improved crop varieties or livestock breeds adapted to climatic conditions in the region should be increased. Attention also needs to be paid to the way research is undertaken and disseminated. It is often the case that useful research does not reach the farmer; more use should be made of participatory research that involves farmers in the research process themselves and allows them to witness first-hand the results of field trials, making it more likely that they will adopt successful approaches.

In most countries land is owned communally; improving the administration, governance structures and transparency associated with land transactions could assist in minimizing land-related conflicts that hamper agricultural production. Improving governance and transparency at a community level can also help to clarify the distribution of benefits resulting from an increase in agricultural production. Insecurity over land-use rights is a constraining factor in several countries as it reduces the incentive of farmers to invest in long-term technology improvement. Improving the efficiency of leasing arrangements can assist in allocating land to where it is valued most highly.

iv) Foster attractiveness of agriculture to youth

Labour shortages or high labour costs, often resulting from a reliance on remittances, represent a constraint to increased production in some countries, for example, Tonga. More generally, engaging Pacific youth in agricultural activities is challenging. Many young people are moving from their rural villages to urban centres in search of paid employment rather than developing agricultural enterprises. Increased food prices will

help to increase the returns to agricultural activities and its attractiveness as a career option. A concerted effort is likely to be necessary, however, to change the general attitude towards agriculture among Pacific youth. This could include an assessment of whether current educational options support agricultural development. One criticism of the options available in some countries is that farmers need to have completed school in order to qualify for formal agriculture training, thus excluding a significant proportion of young people who might make excellent farmers and business owners. Young people can be powerful agents of change and an interest in agriculture needs to be fostered at an early age through appropriate teacher training, school curriculum and by making the link to the healthy lifestyles.

E. Conclusion

Speaking at the Global Agro-Industries Forum in April 2008, Lennart Båge, President of the International Fund for Agricultural Development, said that "with greater investment in agriculture and rural development, the world's 400 million smallholders could mobilize their under-utilized potential, not only to improve their own nutrition and incomes but to enhance national food security and overall economic growth". In order for smallholders to rise to the challenge in the Pacific, existing constraints to boosting production need to be tackled. Governments and donors need to reverse the declining investment in the sector and adopt strategies that target the most promising opportunities for sector growth. These will differ depending on the characteristics of the countries concerned.

Boosting traditional staples is feasible for countries with significant unmet domestic demand and consumer preference for the taste of traditional staples despite their inconvenience. Tropical horticultural exports are possible for countries with good access to international markets and the ability to meet the quality and quarantine requirements of importing countries. Supplying the growing tourism sectors in many Pacific island economies represents a specific import substitution strategy that could be adopted in partnership with tourism operators or associations. Identifying niche products and value-adding possibilities are the most promising ways for smaller countries to capitalize on the image of the "Pacific island paradise" and overcome their inability to achieve economies of scale and compete with larger producers on price.

All strategies require significant commitment and political will on the part of governments to recognize the value of agriculture to income generation, employment, food security and health and to invest adequate and appropriate resources in its development that support rather than crowd out private sector investment. Failure to do so will result in increased hardship, declining living standards and a possible further deterioration in the health of Pacific islanders as a result of higher food prices. In the wake of the food price crisis in 2008 finance ministries paid increasing attention to the agriculture sector and its underperformance, but this attention has waned in the light of the global financial crisis. However, unless the constraints to increased productivity are addressed growers will not be able to respond to the opportunities provided by higher prices. When prices start to rise we will again be asking why more Pacific producers are unable to take advantage of the opportunities provided by higher prices.

IV. Investing In Disaster Risk Management: Economics For Advocacy In The Pacific Islands

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A. Introduction

This paper is intended to illustrate how economic analysis is being used in the Pacific to promote investment in disaster risk reduction and early warning activities.

The Pacific is one of the most natural-disaster-prone regions of the world. Key natural disasters threatening the Pacific include earthquakes, tsunamis, volcanic activity, landslides, cyclones and flooding. According to the World Bank, natural disasters in the Pacific have directly affected more than 3.4 million people and led to more than 1,700 reported deaths (outside of Papua New Guinea) since 1950 (table IV-1).

Table IV-1. Reported disasters in the Pacific islands (1950-2004)

	Number	*Reported fatalities*	*Population affected*[a]	*Reported losses (in millions of 2004 United States dollars))*
Windstorms[b]	157	1 380	2 496 808	5 903.9
Droughts	10	0	629 580	137.0
Floods	8	40	246 644	94.8
Earthquakes	17	53	22 254	330.6
Others[c]	15	274	21 520+	60.0
Melanesia[d]	110	1 130	2 115 332	1 654.9
Polynesia	71	494	1 041 012	1 797.4
Micronesia[e]	26	123	260 662	3 074.0
Total Pacific	207	1 747	3 417 006	6 526.3

Source: World Bank, *Not If, but When: Adapting to Natural Hazards in the Pacific Islands Region* (World Bank, 2006), table 1.

Note: Figures for the World Bank table were drawn from the International Disaster Database (EM-DAT) of the Office of U.S. Foreign Disaster Assistance/Centre for Research on the Epidemiology of Disasters for 1950-2004 data and adjusted by SOPAC (2005) for 1994-2005 data.

[a] Fatalities plus total population affected. All data excludes Papua New Guinea.

[b] Cyclones, tidal surges and storms.

[c] Landslides, tsunamis, volcano eruptions, wild fires and epidemics.

[d] Data for Melanesia does not include Papua New Guinea.

[e] Data for Micronesia is distorted by Guam, which is prone to costly cyclones. For the purposes of EM-

DAT, disasters are defined as “situations or events which overwhelm local capacity, necessitating a request to national or international level for external assistance”.

The most common disasters in Pacific island developing countries are cyclones which develop in the warm moist air of the Pacific seas and ocean. Cyclones accounted for 76 per cent of the reported disasters from 1950 to 2004, and 79 per cent of fatalities (World Bank 2006). The majority of other natural disasters are in the form of floods, droughts and earthquakes, with many of the latter resulting from the proximity of many Pacific island countries to the Pacific “ring of fire”, a nearly continuous series of oceanic trenches, volcanic arcs and volcanic belts and/or plate movements surrounding the Pacific islands.

While the geophysical nature of the Pacific is responsible for the occurrence of many natural disasters in that subregion, the cause of some—and most certainly the scale of impact of many—is also related to social change. The South Pacific Disaster Reduction Programme (SPDRP 2000), for instance, observes that natural hazards pose increasing threats now because of population growth in the Pacific, particularly as a result of internal migration to urban centres and the growth of squatter settlements. Increasing urbanization has also led to the establishment of high-rise buildings and industrial areas, as well as to the spread of settlements into high risk areas such as steep slopes, mangrove swamps and floodplains. In rural areas change has included the replacement of less intensive traditional agricultural and land-use systems by non-traditional, intensive and/or monoculture resource-use systems. The result is increasing vulnerability and increasing impacts from “normal” disasters. This is compounded by the increasing frequency and severity of disaster events related to changes in climate and sea levels.

B. Dealing with disasters

Traditionally, approaches to address natural disasters in the Pacific based on the principle of inevitability have focused on responding to disasters once they have occurred, and on subsequent rehabilitation. These "disaster management" approaches have traditionally included emergency relief, rescue work and medical assistance. For example, disaster relief work for serious flooding in Pacific island countries conventionally involves helicopter rescues, provision of medical relief supplies, food, blankets and water as well as the establishment of makeshift shelters, followed later by repairs to utilities, roads and houses.

More recently, there has been increased interest in the Pacific in investing in disaster risk reduction activities which aim to reduce the likelihood of occurrence in the first place as well as the scale of the impact. Examples of disaster risk reduction activities include vulnerability assessment, and managing human behaviour to avoid natural disasters, for example, by avoiding logging in certain areas to reduce the risk of logging-induced landslides.

Interest in disaster risk reduction work has been promoted in a number of international and regional strategies. Internationally agreed approaches stem from the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters, which is the international policy guide to address disasters (United Nations 2005). This framework emphasizes the role countries can play in reducing the likelihood of disasters and draws attention to the need for disaster risk

reduction. Building on this, and addressing a range of imperatives including security, environmental fragility, and the need for sustainable development, Pacific island countries developed and endorsed in 2005 An Investment for Sustainable Development in Pacific Island Countries: Disaster Risk Reduction and Disaster Management: Building the Resilience of Nations and Communities to Disasters: A Framework for Action 2005-2015 (Pacific Disaster Risk Reduction and Disaster Management Framework). This document outlines the major policy initiatives to support the management of disasters in the Pacific. Additionally, Pacific island developing countries and territories adopted in 2005 the *Pacific Plan for Strengthening Regional Cooperation and Integration* (Pacific Islands Forum Secretariat 2005) as the overarching strategic development policy document for the Pacific subregion. The Plan emphasizes the need for improved disaster risk management practices and policies to enhance efforts for sustainable development.

In recognizing that some disasters remain inevitable, there has also been increasing interest in early warning systems. This is the case, for instance, where disasters are outside human control (e.g., from storms or flash floods). In such cases, early warning systems are critical to provide communities and agencies the chance to prepare in advance and to reduce the scale of impact. Early warning systems are a form of disaster mitigation and have traditionally been regarded as part of the disaster management set of activities. Nevertheless, this component of disaster management (early warning systems) has been accorded relatively little attention in the past. Accordingly, both the Hyogo Framework for Action and the Pacific Disaster Risk Reduction and Disaster Management Framework for Action 2005-2015 emphasize the importance of early warning systems.

C. The challenge in the Pacific

Despite the new emphasis on disaster risk reduction and early warnings, there remains something of a tendency for stakeholders in the Pacific—and arguably elsewhere in the world—to target post-disaster activities such as disaster response and recovery. This is partly because investment in disaster risk reduction and early warning systems may not yield benefits for many years. Investment today diverts scarce funds away from other sectors (e.g. health) where the benefits of investment can be reaped more rapidly compared to disasters that may not happen for many years.

As an illustration, Mataki, Koshy and Nair (2006, p. 19) state that adaptation to climate change in Fiji to cope with extreme climate events can be hampered by the fact that adaptation can be "[…] perceived as attempts to prepare for a future 'unlikely adversity', which is not as pressing as the need to meet basic daily needs such as food and shelter. … Consequently, the notion of adapting to climate change is seldom regarded as a high priority by governments and individuals and thus loses out in terms of funding and institutional support". In other words, incentives to invest in reducing the risk or impact of future natural disasters are low on the list of priorities for most countries.

In the case of disaster risk reduction activities, the problem is compounded by the fact that it may be difficult to prove that disaster risk reduction efforts even work:

ironically, where disaster risk reduction is effective, disasters either ultimately do not occur, or their impact is reduced.[1]

The problem is further compounded by the perception of many stakeholders (communities, governments and the international community) of disasters as a humanitarian rather than a development issue. This means that donors and susceptible communities frequently focus investment on alleviating human suffering and losses rather than on averting them in the first place. In addition, the World Bank (2008) suggests that the tendency of donors to act following natural disasters creates a "perverse incentive", encouraging Pacific island countries to simply wait for a disaster to hit and then rehabilitate, rather than acting to head disaster off in the first place. This deters participation in prevention or warnings. Accordingly, Mataki, Koshy and Nair (2006, p. 20) observe that in Fiji, national Governments usually provide relief assistance during and after tropical cyclones, and that this can actually "… accentuate the local community's dependence on the national governments and may therefore dissuade them from actively participating in the adaptation process". The combined effect of all these influences is that it can be difficult to persuade hard-stretched national and international agencies to mainstream investment in disaster risk reduction and/or early warning systems.

[1] The section on "Existing policies and programmes" of this paper will investigate the costs and benefits of disaster risk reduction interventions to different stakeholders.

D. Disaster as a development issue

In actual fact, disaster is a critical determinant of development in the Pacific since it can effectively eliminate previously hard-won gains from development. The economic cost of natural disasters in the Pacific is high. In the 1990s alone, reported natural disasters cost the Pacific islands subregion $2.8 billion at 2004 prices (World Bank 2006). However, it is only at the national level that the true impact of disasters on the economy is visible. This is because, compared to developed countries with larger reserves to draw on in times of disaster, the small size of most Pacific island States means that disaster can have a disproportionately high impact on their economy. Accordingly:

- During disaster years, Samoa reported average economic disaster costs of 46 per cent of annual gross domestic product (GDP) (World Bank 2006)
- Fiji incurred an estimated F$667 million worth of losses from the cyclones and storms occurring during 1972-2004. This averages F$20 million per year

One-off events can be exceptionally harmful:

- The 2007 earthquake and accompanying tsunami that hit Solomon Islands cost the country around SI$ 700 million—or around 90 per cent of the 2006 recurrent Government budget (ADB 2007)
- The damage caused by Cyclone Val to Samoa in 1991 was assessed at a cost equal to more than twice the country's GDP (Fairbairn 1996)

- Cyclone Heta, which hit Niue in 2004, generated immediate losses that amounted to more than five times the 2003 value of GDP[2]
- The recent tsunami that hit Samoa (September 2009) incurred direct damage costs in the region of at least 5 per cent of GDP (Samoa 2009)

These are only the direct (and preliminary) estimates of the costs of disasters and are based on immediate losses such as the destruction of infrastructure and crops. However, natural disasters also indirectly impact economic growth further by hampering access to markets through damaged transport infrastructure, and by lowering economic capacity, for example through the loss of educational opportunities.

Why, then, if the costs of natural disasters are so high, is the development impact of natural disasters so poorly recognized? Costs can be partially disguised somewhat by the fact that investment in disaster recovery and rehabilitation can result in spikes in economic growth as rehabilitation and construction work takes place to replace lost public assets. This generates misleading statistics on the health of an economy. The reality is that natural disasters remove essential productive resources from the global and national economy. For instance, schools that would otherwise have been used to support tertiary education to promote accelerated social development become diverted for use as emergency housing, setting back the capacity of local people to engage in competition

[2] Total damage inflicted by Cyclone Heta was estimated at NZ$ 89.1 million (Niue 2004). GDP statistics for Niue in 2004 are not available (Statistics Niue, personal communication, June 2008) although GDP in 2003 is reported as NZ$ 17,252,000 (Statistics Niue, undated, www.spc.int/prism/country/nu/stats/Nu_Economics_new/Niue_GDP.htm).

nationally and internationally. At the same time, the education funds that would have been used to cover school materials become diverted to pay for water or food supplies that have been destroyed.

Accordingly, Fairbairn (1996) confirms that "the direct damage to a country's productive base and associated macroeconomic instability can deal a substantial blow to ongoing efforts by these countries to achieve longer-term sustainability and improvements in living standards". At the same time, the process of development and the kind of development choices made in many countries can affect a country's vulnerability to disasters. For instance, poverty can result in incentives to settle in cheaper land where risks are higher, such as areas prone to flooding, or can result in environmentally unsustainable development practices such as excessive logging that leads to erosion and landslides during heavy rains. With disasters so economically damaging, and the perceived benefits of disaster risk reduction and early warnings so intangible, how can hard-pressed Pacific island treasuries and cautious donors be convinced to invest in such disaster prevention or early warning systems?

E. Existing policies and programmes

The first step in trying to convince governments to consider these measures has been to include them in the pivotal Pacific framework for disaster: the Pacific Disaster Risk Reduction and Disaster Management Framework for Action 2005-2015. This document emphasizes the need to incorporate disaster risk reduction activities in national work.

To help Pacific island governments implement the Framework, the Pacific Disaster Risk Management Partnership Network, a network of international and regional agencies, was established in 2006. The Network aims to help Pacific island countries develop and execute national action plans for disaster risk management—including but not limited to disaster risk reduction and early warning strategies.

Importantly, economic analysis is now playing a key role in supporting the process. Economic assessments of disaster risk reduction and early warning activities can be used to determine how much these interventions can contribute to economic development. The findings of such assessments are being used by Pacific island disaster agencies to advocate for more resources. Following are three examples of how economic analysis is being used to advocate for investment in disaster risk reduction and early warning systems across the Pacific.

1. Case No. 1: Kiribati coastal floods and sand coastal mining—investing in disaster risk reduction

The Tarawa atoll in the tiny island nation of Kiribati is currently experiencing something of a construction boom. Demand for construction is being fed by investment from international development agencies and increasing inward migration from the outer islands. The result is increasing demand for aggregates (sand and gravel) to support the construction of housing and commercial buildings and support the reclaiming of land and upgrading of roads. Conventionally this demand for aggregates for construction has been met by excavating locally available aggregate from the beaches and coastal flats around

Tarawa, particularly around the south (figure IV-1). Although this “coastal mining” is cheap and effective, there is only a limited amount of material available and removing too much aggregate from the beaches has been shown to increase coastal erosion (Webb 2005).

Consequently, South Tarawa is at increasing risk of disaster. There is increased incidence of wave overtopping, flooding of key amenities such as the hospital, and saltwater intrusion to ground water. The problem is becoming increasingly urgent in the face of rising sea levels from climate change. At a time when Tarawa residents most wish to build seawalls to protect them from the sea (however effective or not this might ultimately prove to be), removing the sand from their beaches to build the walls can ironically actually put them at greater risk of flooding.

The Government of Kiribati tries to manage the disaster risk associated with coastal mining by banning it from geologically sensitive areas around South Tarawa and permitting mining only in safe designated areas. Unfortunately, illegal mining occurs (Greer Consulting Services 2007) with some miners allegedly creeping out at night to collect aggregates while Government coastal wardens are off work (Government of Kiribati, personal communication, March 2007). The result is that Government efforts at Disaster Risk Reduction for mining-related flooding are of limited success.

One disaster risk reduction option that the Government might use to minimize disaster risk is to supply aggregates from the Tarawa lagoon instead of from the coast.

Scientific and mapping activities confirm the existence of substantial supplies of aggregate in the lagoon which are suitable for most types of construction work around the atoll. The Government is therefore interested in establishing a company to dredge the aggregates to support construction while minimizing disaster risk. However, the Government would need to be certain that dredging would pay for itself and not aggravate coastal erosion: in other words, this disaster risk reduction option needs to be financially and economically self sustaining as well as being ecologically neutral.

Figure IV-1. Beach mining around Tarawa, Kiribati: family collecting sand and gravel from the shorelines of South Tarawa, Kiribati, for construction

Source: Image reproduced courtesy of Arthur Webb, SOPAC.

To inform this, an economic analysis was conducted to asses the economic and financial feasibility of supplying aggregates from the lagoon. The analysis (Greer Consulting Services 2007) indicates that a commercial company established to dredge aggregates sustainably from the lagoon could operate feasibly, potentially generating a

small annual profit of around 62,000 Australian dollars in a year when no major infrastructure projects are under way. Substantially higher profits could theoretically be generated in a year when major infrastructure projects are under way. At the same time, targeting lagoon reserves would help protect the coastal environment, thereby reducing the chances of flooding in the future.[3] The study estimates that sustainable lagoon dredging could generate a minimum economic return of around 16 per cent. This is a high rate of return and is all the more significant when it is considered that the study was not able to include values for all the environmental benefits of reduced mining around South Tarawa.[4] Additionally, the study identified a number of issues that would need to be accommodated in the design of any commercial lagoon-dredging operation around Tarawa.

The findings from the study have now been used by the Government of Kiribati to design the Environmentally Sustainable Aggregates for Tarawa initiative to dredge aggregates from Tarawa lagoon to reduce disaster risks while meeting construction needs. In light of the project design and the favourable economic analysis, the European Union has subsequently provided €2.2 million to establish the initiative and assist in risk reduction. The project is scheduled to be completed in 2011.

[3] Note that dredging is not a one-size-fits-all solution, since studies on dredging have shown that it can cause beach erosion or build-up, depending on the effect it has on the movements of waves and currents.

[4] Benefits such as the protection of infrastructure, property, public utilities, agriculture and public health were not included.

2. Case No. 2: Samoa coastal floods and flood mitigation—investing in surveillance and flood prediction

River floods, especially severe flash floods caused by heavy rainfall, are a frequent occurrence in Apia, Samoa, during the rainy season due to its geography and high rainfall. Apia is built on the low-lying floodplains of five rivers: the Fagalii to the east, and the Fulouasou, Gasegase, Mulivai and Vaisigano to the west (Taule'alo 2002). Severe floods occurred in Apia in 1939, 1974, 1990, 2001 and 2006. The Government of Samoa has recently worked with international agencies to develop management guidelines and a plan of action to reduce flood risks in the lower Vaisigano catchment area. The resulting action plan includes a number of structural options and non-structural management options that could potentially reduce flood risk (table IV-2). The activities considered in the plan include investment in surveillance and forecasting. This is important given that Apia is a well established city and that people and businesses are unlikely to relocate, despite the ongoing risk of flooding. Consequently, up-front investment may be appropriate to enable forecasting so that people can plan for and mitigate disaster impacts.

Table IV-2. Flood management options

Structural flood management options	*Non-structural flood management options*
Construction of floodwalls	Development control—raised floor heights
Construction of a by-pass channel	Improved flood forecasting system
Construction of a reservoir	
Increasing channel conveyance	
Pumping	
River maintenance	

Source: Author's compilation.

The options contained in the plan are numerous. In reality, it would not be practical to implement all of the options because the costs of doing so would be prohibitive and, in any event, only a selection of measures would probably be sufficient to substantially reduce disaster risks or impacts. Instead, an economic analysis of options was conducted to assist the Government of Samoa in comparing options and selecting which measures to target. The results (Woodruff 2008) indicate that while investing in structural flood management options is unlikely to be economically viable due to high construction and maintenance costs, the economic pay-off from investing in non-structural measures, including raised floor heights, can be very high. For example, for every tala invested in constructing homes with elevated floor heights, it was estimated that 2 to 44 tala would be saved in terms of avoided flood damages. Similarly, the benefits from investing in an improved flood forecasting system were found to be positive, with every tala invested in the improved system estimated to yield between 1.72 and 1.92 tala in avoided future flood damages.

The findings of the study can now be used to implement the Samoa Flood Management Action Plan 2007-2012 and, importantly, to lobby the Government to invest in disaster mitigation measures such as more training in flood forecasting and building controls to raise floor levels. Some donors have expressed interest in supporting some of the interventions that were assessed as most economically feasible. For example, the European Union expressed early interest in using the information generated to determine whether to invest in further flood modelling work (Nadia Meredith, European Union Water Sector Support Programme, personal communication, 11 September 2007).

3. Case No. 3: Fiji floods—investing in early warnings

Economic analysis is being used by the National Disaster Management Office of Fiji to lobby the country's Treasury to invest in warning systems for flooding. Floods are no rare occurrence in Fiji: the January 2009 flood that affected mainly the Western part of Viti Levu island and claimed 11 lives was one of the worst floods on record and cost an estimated F$ 113 million (Fiji 2009), mainly in lost crops and infrastructure damage. While floods of this severity are extremely rare, the town of Navua in the Eastern Division is subject to flooding an average of once every seven years. A recent economic analysis (Holland 2008) estimates that the last major flood in Navua in 2004 alone cost the country F$ 13 million. This is a major increase with respect to previous estimates and compares starkly with average losses from Fiji cyclones over a 32-year period of F$ 20 million per year for the entire country.

The economic analysis reveals that the losses resulting from the 2004 floods hit families hardest, in particular through damage to personal possessions and health. Estimated losses to families around Navua averaged around F$ 6.7 million, while impacts on businesses accounted for the second greatest loss (an average minimum of F$ 3 million). However, the study also reveals that government losses (damage to hospitals, schools, infrastructure, and provision of humanitarian assistance) were substantial at around F$ 2.5 million.

It needs to be recognized that an early warning system would not prevent floods such as that which occurred in 2004. Nor could it ever prevent all such damage from

occurring. Some damage is unavoidable, such as damage to farmland in the path of the flood which cannot be moved or protected from oncoming waters, no matter how much warning is received. On the other hand, some preventative action could be undertaken with sufficient warning of an oncoming flood. For example, possessions might be lifted or wrapped to limit or avoid damage, people or animals might move to higher land to avoid injury or sandbags might be placed to limit some structural damage to buildings. In the light of this, the study indicates that a flood warning system established in the town would on average save the country F$ 2.1 million-4.2.million over its 20-year life span. This represents a potential savings of between 16 and 32 per cent of the 2004 gross losses. Economic returns from the warning system are subsequently estimated to be between F$ 3.7 and 7.3 per Fiji dollar invested (Holland 2008).

These high potential returns are likely to accrue to all stakeholders affected by Navua floods—including the Navua community itself, national agencies and the international humanitarian community that assists during emergencies. However, critical to ensuring ongoing investment in the warning system is the support of the Government of Fiji, which would be responsible for paying for the ongoing maintenance, upkeep and education needed to ensure the smooth operation of the system over its life.

The study estimates that the Government of Fiji would be expected to make, on average, between F$ 1 and F$ 2 worth of genuine savings for every dollar it invests in maintaining the system. The savings would arise from benefits such as reduced harm to health and education amenities as well as the reduced need for humanitarian support

during crisis because people would be better prepared to cope with flood disasters. The information is currently being used as compelling evidence by the National Disaster Management Office of Fiji to persuade the country's Treasury to support the maintenance of the system for the next 20 years.

Figure IV-2. Flooding in Navua, Fiji, 2004

Source: Author.

F. To analyse or not to analyse?

The examples above illustrate how economic analysis can be used to promote investment in disaster management, whether it is to governments or donors. Economic analysis can be a powerful advocacy tool because it can quantify the benefits that stakeholders can derive from supporting interventions, providing an incentive for their investment. Theoretically, the use of this kind of analysis can increase transparency in decision-making by making donors and government agencies more accountable: it would be harder for a donor or government to explain to its electorate/stakeholders why it will

not fund a disaster intervention with potentially high returns. In any event, it can certainly raise the interest of donors, as the examples in Kiribati and Samoa demonstrate.

However, it is not practical to conduct an economic analysis of every disaster risk management intervention that a Pacific island country considers. Leaving aside the costs of appraising everything and the lack of natural-resource economists in the Pacific (which would render universal appraisal impossible), conducting a comprehensive economic analysis of all possible disaster risk management interventions[5] would invite equivalent claims for appraisals of interventions in other sectors (health, education, defence etc.) against which disaster risk management activities compete for funds. In this case, donors and Pacific island governments would spend their time doing nothing but investment appraisals.

When should an analysis be conducted then? There are few universally accepted answers to this question. Certainly, any interventions which hinge substantially on the establishment or refinement of income generating activities require some form of analysis to ensure that the commercial activity is likely to be feasible. Without this, the enterprise may collapse. Also, where an activity is new to a government or donor (as in the case of warning systems in some areas), economic feasibility assessments offer a practical way to demonstrate that the intervention is not unnecessary but is in fact valid and economically beneficial. Outside of these commercial or innovative types of interventions, there are few clear and fast rules to determine whether or not an appraisal should be done.

[5] Interventions in the area of disaster risk reduction as well as disaster management (including mitigation).

Ultimately, then, it will be up to governments and donors to decide when to conduct an analysis.

Where an analysis is to be done, the scale of any proposed intervention should in part determine the scale of assessment. Where interventions (both disaster risk reduction and disaster management) are modest in cost, economic analysis can be scaled down to crude estimations that generate a broad order of magnitude of returns from an intervention. Where disaster risk management interventions are costly, analysis should be more comprehensive as there is more at risk. Such analyses will take longer, require more expertise and are therefore usually more expensive.

Access to expertise to conduct economic analyses can be an issue for small administrations. The economic analyses described in this paper were undertaken as part of integrated resource management projects funded by international agencies. However, many Pacific island government agencies do not have access to appropriate donor funds and/or have few staff who have the time or training to conduct the analyses. Consultants can be expensive and agencies must know in advance what to contract consultants to do. It may be tempting to defer to consultants who “sell” an unreliable investment appraisal. Alternatively, some Pacific agencies (Forum Fisheries Agency, Pacific Islands Forum Secretariat and Pacific Islands Applied Geoscience Commission) employ resource economists who may be able to assist in conducting the work.

G. Conclusion and recommendations

Economic analysis can be a powerful tool to advocate for investment in disaster prevention or early warning systems. It provides donors and governments with an assessment of the benefits of investing in the activities, while in the process it can quantify the economic impact of disasters and raise the profile of disasters in a development context. Strategically shared, the information generated can make government agencies and donors more accountable to countries facing natural disaster and result in increased investment in essential disaster risk reduction and early warning activities.

In this way, economic analysis is now supporting Pacific island developing countries to mainstream disaster risk management into national planning processes and thereby elevate disaster from a humanitarian issue to an everyday development issue. Economic analysis is supporting the activities of the Pacific Disaster Risk Management Partnership Network as it assists countries to “disaster proof” their national and sectoral plans and advocate for change. Economic analysis for disaster risk reduction and early warning systems is not, however, a task that can be conducted at will. Resources and expertise in the Pacific are limited and governments and donors need to determine when to conduct analyses and how to fund them.

V. The Development Of Tourism In The Pacific

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A. Introduction

Tourism is a dominant economic sector in most countries and territories of the Pacific, and shows the greatest potential for further growth. Given its strong linkages to other economic sectors such as agriculture, construction and transport, growth in the tourism sector stimulates overall economic growth. Since the sector is labour-intensive, it generates high levels of employment relative to capital invested in developing countries. Such employment tends to be gender-neutral and decentralized, as it employs both women and men in both urban and rural areas. Since tourism is international trade in services, it also accounts for a sizable share of foreign exchange. Given these characteristics, tourism, more than any other sector, holds promise as a source of long-term economic growth as well as employment in the Pacific.

The recent global economic slowdown has not spared the tourism sector. Global economic growth was expected to fall from 3.0 per cent in 2008 to -1.1 per cent in 2009, with output in developed countries falling from 0.6 per cent in 2008 to -3.4 per cent in 2009 (IMF 2009). As the economic slowdown undermines consumer and business confidence, global international tourist arrivals, which rose by 2 per cent to reach 924 million in 2008, was expected to decline in 2009 (WTO 2009).[1] Tourism in the South Pacific, excluding contributions from the cruise sector, rose from US$ 1 billion in 2000 to an estimated US$ 1.5 billion in 2004 according to a survey conducted by Auckland

[1] Although unavailable at the time of writing, the trend for international tourism receipts was expected to closely follow that of arrivals.

University of Technology in 2005 (South-Pacific.travel 2009). Assuming that this level of growth is maintained, by 2010 the tourism sector could achieve earnings of US$ 2.7 billion. Whether this growth will be achieved, however, depends largely on the willingness of consumers to travel despite higher unemployment and lower incomes as a result of slower economic growth; the shifting cost of travel to the Pacific owing to fluctuations in the exchange rate and commodity prices; and a variety of exogenous factors ranging from changes in weather to political stability.

Leaders from the Pacific recognized the importance of tourism to long-term economic growth and employment in the *Pacific Plan for Strengthening Regional Cooperation and Integration* as well as in the Vava'u decisions on the Pacific Plan.[2] In line with this political commitment, governments, together with the private sector and local communities, need to consider how they can best address the common problems and challenges facing the development of tourism in the Pacific, which have been exacerbated by the global economic slowdown and climate change. This needs to be done in such a way that the sector continues to be a significant source of economic growth in the Pacific, both in the immediate future as well as in the long term. Given the links

[2] In the Vava'u decisions on the Pacific Plan, leaders agreed to, among other things: "reconsider their current levels of support to their tourism industries and consider increasing these levels where appropriate; prioritise development of infrastructure and transport links (e.g. roads, ports, airports, aviation and shipping) in their countries to foster sustainable tourism and encourage foreign investment in their tourism industries; and encourage development of regional and sub-regional marketing strategies and brands for major international markets" (Pacific Islands Forum Secretariat 2007, annex A, p. 11).

between tourism and other economic sectors, other sectoral policies which have a significant bearing on tourism also may need to be reconsidered.

B. Tourism in the Pacific

In 1950, the top 15 destinations in the world accounted for 98 per cent of all international tourist arrivals. This figure declined to 75 per cent in 1970 and to 57 per cent in 2007, owing to the emergence of new destinations, many of them in developing countries.[3] The expansion of tourism, in parallel with economic development, has been especially noticeable in the countries of Asia and the Pacific.

The South Pacific is an aspirational destination for the world's well-heeled travellers. The region has an image of being a paradise of exotic tropical islands and inhabitants owing to images reinforced through novels, films and paintings.[4] Given its size and tropical location, the Pacific subregion offers a range of attractions, including undeveloped tropical marine environments and diverse cultures. Although countries in the Pacific are islands, the types of tourism that may be fostered in these countries may vary. Due to their geographic variety, ranging from the highlands of Papua New Guinea and the volcanic craters of Vanuatu to the lakes of Palau, countries and territories offer a range of opportunities for the development of tourism. Their unique combination of

[3] See the World Trade Organization website: Tourism and travel-related services (www.wto.org/english/tratop_e/serv_e/tourism_e/tourism_e.htm).

[4] For example, Robert Louis Stevenson's *In the South Seas* (1896), James Michener's *Tales of the South Pacific* (1947), paintings by Paul Gauguin, songs by Jacques Brel, several books, films and popular songs commemorating the mutiny on the *Bounty* ship, etc.

cultural (Micronesian, Melanesian and Polynesian influences) and natural assets makes them well-placed to benefit from increasing interest in ecotourism or special interest tourism (e.g. heritage ecotourism, whale watching, bird watching, etc.).[5]

At the same time, geography also determines the types of tourism that can be developed in these countries. Large-scale development of tourism may be limited in small atolls which have limited supplies of fresh water, land for resort development and waste disposal.

Since there is limited domestic or intraregional tourism within the Pacific, tourists generally arrive by air or sea from countries outside of the Pacific. International air passenger arrivals in the Pacific, which rose by 3 per cent in 2006 over the figure for 2005, increased by another 4 per cent in 2007 to reach 1.36 million.[6] While double the rate of Australia and New Zealand, growth in international air passenger arrivals was still lower than in many other developing countries in Asia and the Pacific. In addition to international air passenger arrivals, an estimated 900,000 visitors arrived in countries of the Pacific on cruise ships in 2007.[7] Cruises allow smaller and more remote islands, which are unable to make large capital investments for airports, to welcome large numbers of visitors. Although the number of cruise passengers have increased significantly in recent years, whether arrivals by sea will overtake arrivals by air depends

[5] According to a regional review, whale- and dolphin-watching tourism increased tenfold between 1998 and 2005, while the estimated revenues reached $21million (O'Connor 2008).

[6] Data from the South Pacific Tourism Organisation.

[7] Ibid.

on a number of factors, such as demand by specific demographic groups for this type of tourism.

Tourism in the Pacific is dominated by Fiji, which receives about 40 per cent of all visitors.[8] Traditionally, it has also been important for eastern Polynesia (Tahiti and the Cook Islands) and for North Pacific States; it accounts for two thirds of the gross domestic product of Palau.

Tourism is becoming increasingly important. In recent years, the sector has enjoyed strong growth in Samoa, Tonga and Vanuatu, and has become a significant contributor to those economies. Most recently, tourism is being embraced by States that are rich in land resources, such as Papua New Guinea and Solomon Islands, as it becomes more apparent that finite natural resources need to be supplemented with sustainable industries. Indeed, the number of visitor arrivals in Papua New Guinea, the fastest growing South Pacific destination in 2007, has doubled between 2003 and 2008. Tourists brought in $358 million to Papua New Guinea in 2008, an increase of over 9 per cent from the previous year, despite a visible slowdown in the last quarter resulting from the global economic crisis.[9]

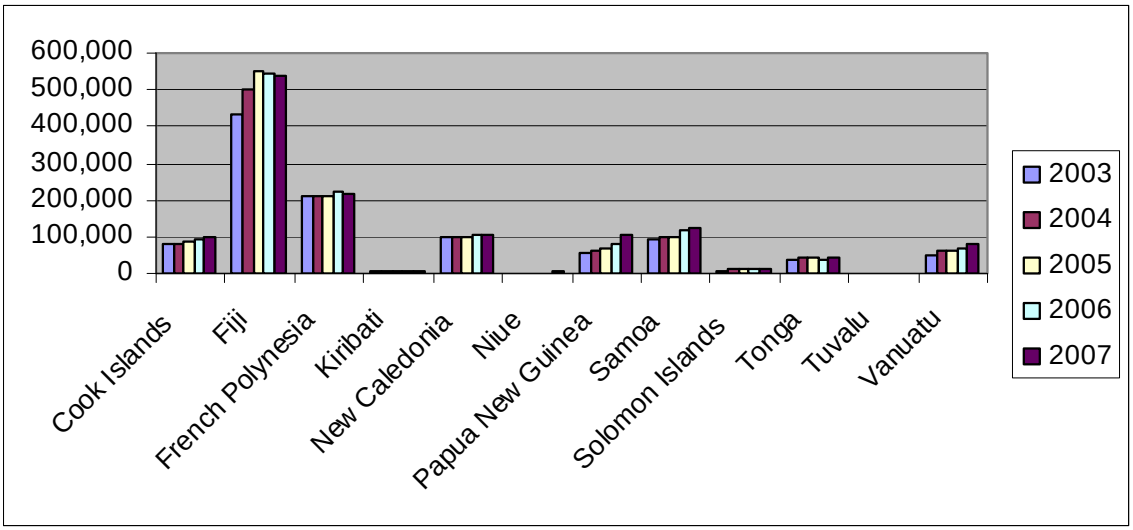
Small island States such as Kiribati, the Marshall Islands, Niue and Tuvalu also have excellent resources for niche tourism development, for example, fishing and diving,

[8] Ibid.

[9] "Tourists brought in K960m to PNG", *PacNews*, 6 February 2009, Port Moresby.

and have considerable potential for ecotourism, as visitors from densely populated developed nations increasingly appreciate and seek more pristine natural environments, perhaps an indication of their increasing awareness of the imminent impacts of global warming.

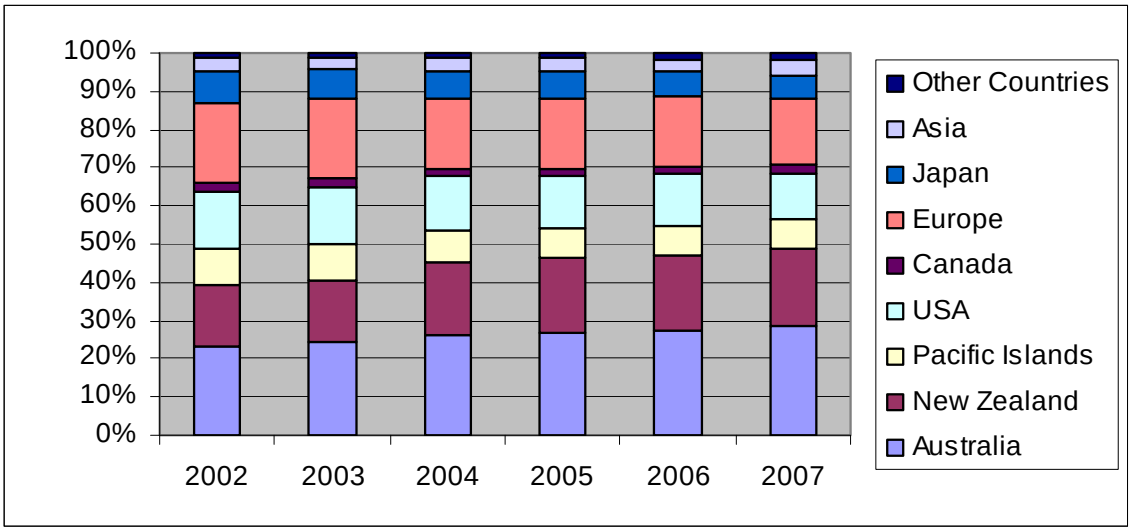
Figure V-1. Air visitors' arrivals to the South Pacific, by destination



Source: South Pacific Tourism Organisation.

South Pacific tourism has a well-balanced market portfolio (see Figure V-2). Over a decade, strong growth from southern markets (Australia and New Zealand) has resulted in about half of all visitors coming from the southern hemisphere, and half from the northern hemisphere. As the South Pacific is an ideal winter escape for visitors from temperate developed countries and each hemisphere has a separate winter period, it makes sense to draw on both, and such an equally balanced southern/northern market mix provides some insulation against downturns in particular markets. For example, northern Pacific States over-reliant on Japanese tourism in the 1980s experienced considerable economic impacts when the Japanese economy went into decline in the early 1990s.

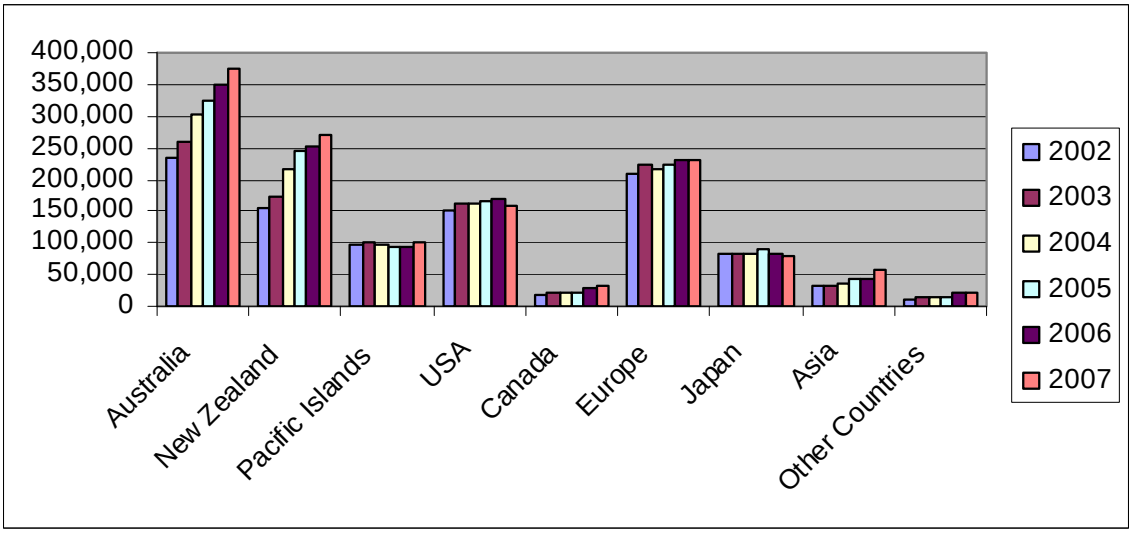
Figure V-2. Market mix for South Pacific tourist arrivals, by source market



Source: South Pacific Tourism Organisation.

There is only a small domestic or subregional tourism market (see Figure V-3) and, given the small population of the region, this cannot be expected to provide any significant growth. By contrast, growing arrivals from such emerging markets as Brazil, Russia, India and China provide an opportunity to balance recently strong southern market growth.

Figure V-3. Visitors to the South Pacific, by source market



Source: South Pacific Tourism Organisation.

C. Problems and challenges

Much reference has been made to the potential of tourism in the region to act as a catalyst for development. However, there is nothing automatic in this process, and governments and other tourism stakeholders need to address some major issues if the potential is to be realized.

1. Multipliers and leakages

Some observers have criticized tourism as being a "leaky" industry, suggesting that an undue proportion of tourism receipts is returned to developed nations, rather than being retained locally.

However, in an opinion paper from the London Overseas Development Institute on leakages from tourism, Mitchell and Ashley (2007) suggest such criticism might have to be modified:

> "Marketing, insurance, retailing, packaging, and long-haul flights are often 50 per cent to 70 per cent of total package cost and are normally provided by western tour operators and airline companies. Regarding this as a "leakage" is like suggesting that staff and accommodation costs for serving a cappuccino in a London café are 'leakage' from coffee plantations in Ethiopia!"

The authors also state that "leakage pessimists do us a disservice. The analysis uses muddled thinking and poor arithmetic to generate the wrong answer to an inappropriate policy question. The exaggerated claims divert attention from an important

challenge at hand—boosting the linkages between tourism and the rest of the local economy".

Nevertheless, it remains the case that tourism can provide much greater flow-on effects to the economies in the Pacific if closer linkages with supporting sectors such as agriculture and handicrafts can be made. A graphic example of good linkage between tourism and other sectors is the brewing industry. Fosters in Fiji notes that the economic viability of its local operations is tourism dependent—accounting for 40 per cent of its revenues. After the 2006 political events in Fiji, the brewery had to close until visitor numbers recovered, and at the time of writing further linkage work is needed to provision foreign cruise vessels with local beers when they call. More generally, productive cross-sector linkages do not happen automatically and require guidance and clear policies.

Tourism creates economies of scale in the small economies in the Pacific. These facilitate infrastructural development and such economic sectors as agriculture, construction and services, which would have otherwise been impossible. And as tourism increases in urban and rural areas, its linkages to the domestic economy can prompt further formal and informal sector employment and investment in the Pacific region.

2. Small and medium-sized enterprises

There are a few large commercial stakeholders in tourism, most notably airlines, which need to achieve economies of scale. Generally, though, like agriculture, global tourism is dominated by a large number of small and medium-sized enterprises (SMEs). Developed governments from the Pacific Rim have clearly understood the need to

support SMEs in a range of activities, including: developing an understanding of the market; co-ordinating SME activities; and creating a more enabling environment for SMEs to gain access to research and information, acquire professional skills (for example, e-commerce), extend their technical knowledge and sector contacts, and develop connections with complex and geographically remote international markets. As a consequence, in recent years funding has been significantly increased for such government organizations as Tourism Australia, Tourism New Zealand, the Singapore Tourism Board, the Hong Kong Tourism Board, the Japan National Tourism Organization and the Korea National Tourism Organisation.

By contrast, small Pacific island States lack the financial resources to provide the necessary help to their SMEs, including those active in the tourism industry. Nevertheless, to take full advantage of the sector potential for growth, they must build the professional capacity of their tourism practitioners across a range of stakeholders, including government officials and SMEs. By liberalizing air services, for example, an island State can improve its connectivity with markets. However, it is unrealistic to expect a small ecotourism operator in such a State to accumulate alone the technical knowledge, social and cultural capital required to launch a cost-efficient and effective sales mission to travel agents in such major cities as Los Angeles or Sydney. Someone needs to show them how. Classroom and textbook study are helpful but not enough. Guidance and mentoring are needed.

This is not to suggest that the hospitality sector in the South Pacific should be taken over by multinational companies. Clearly, they have a major role to play, and in Fiji, for example, they dominate the upper end of the market. However, a major strength of South Pacific tourism is the range of hospitality on offer, and the situation is different elsewhere, for example, in the Cook Islands, where highly successful tourism has been developed by the owners of local guest houses and small hotels. More particularly, the aim should be to develop tourism across a range of products, all of which efficiently provide a high level of service appropriate to their position in the market.

3. Human resources

As in less developed countries elsewhere, SMEs in the South Pacific need considerable support, and encouraging successful entrepreneurship is a major challenge. For example:

(a) In many countries in the Pacific there is no background of entrepreneurship and potential business people face many hurdles, including the need to acquire capital and business skills;

(b) There may be many demands on the time and resources of owners of small businesses, with family and community commitments frequently taking precedence over the need to re-invest in the business.

More general issues around inadequate human resources also include the following:

(a) There is a need to educate and train personnel for their entry into the various travel and tourism sectors;

(b) There is often a significant cultural gap between residents of island societies and the hospitality sector which, while perhaps being part of the “attraction”, can also create difficulties in providing professional services to tourists;

(c) There is a lack of experience in tourism settings of young people hoping to enter some sector of travel and tourism, which exacerbates difficulties in providing professional services;

(d) There is frequently a lack of fit between the expectations of major stakeholders in the tourism industry and the expectations of potential entrants.

In such circumstances, it is necessary for educational and training institutions to work together to ensure that an agreed balance of education and training is achieved. In this endeavour they need to support (and be supported by) the national and regional tourism industry. However, at the time of writing, in many island States such collaboration is still at the formative stage.

4. Land, politics and distribution issues

Throughout Melanesian societies, in particular, land is commonly regarded as a communal resource, and one which has not only economic but also spiritual and cultural significance. In Fiji, for example, the availability of freehold land has conditioned tourism development, and where land is leased by hoteliers from landowners, disputes between the parties are not unknown.

In these circumstances, the economics merges with politics and, at such times, tourism features keenly in national debates, as it did in Fiji when the ownership of marine resources was a major topic in the period leading up to the political events of 2006.

At the heart of these debates is, though it is frequently unstated, the issue of who benefits from tourism. There is little analysis or knowledge of the differential economic impacts and advantages of the numerous types of tourism found in South Pacific island States. Dive and surfing operations, luxury boutiques and backpacker resorts, five-star hotels and second-home apartments and condominiums can all be found throughout the region. Landowners of desirable beaches and other sites valued by tourists, for example, may obtain a considerable income from leasing their land to hotels, as in the case of Narawa village, which owns the land of Denarau, a total integrated resort, in Fiji. Retailers and hoteliers can, too, clearly benefit from tourism, but the extent to which the economic benefits from tourism are distributed more widely has been little researched.

D. Policy recommendations

1. Existing policies

At the national level, governments of various Pacific island States are attempting to address the gap in professional tourism know-how and improve global connectivity via the efforts of their respective tourism offices and ministries. They also contribute to regional efforts (with associated economies of scale) via the regional tourism organization (south-pacific.travel).

However, resources are scarce and the level of investment of governments in the Pacific has been low. For example, the tourism office often has only one member of staff, who also represents the State in all dealings with the regional tourism organization.

2. Suggested policies

At their October 2007 meeting in Tonga, the leaders of the Pacific island countries agreed to reconsider their current levels of support to their tourism industries and consider increasing these levels where appropriate; prioritize development of infrastructure and transport links (e.g. roads, ports, airports, aviation and shipping) in their countries to foster sustainable tourism and encourage foreign investment in their tourism industries; and encourage development of regional and sub-regional marketing strategies and brands for major international markets (Pacific Islands Forum Secretariat 2007).

More specifically, what is needed is the following:

(a) *Development of sustainable regional and national strategies*. The status of national tourism strategies varies widely within the Pacific, and some countries have no national strategy at all. Capacity must be developed so that effective national strategies can be produced and then integrated into a meaningful and effective regional strategy. This is essential to ensure the sustainable development of the sector in harmony with the cultural and natural values of the Pacific;

(b) *Greater coordination of tourism with other economic sectors*. In the Pacific region, as elsewhere, tourism needs to be coordinated more closely with other economic sectors, specifically agriculture, fishing and manufacturing. This requires clear strategies

and incentives to encourage producers to understand and meet the demands of the different sectors of the tourist market, which in turn should encourage local producers;

(c) *Support and capacity-building for tourism SMEs.* Tourism is a demanding industry for the SME entrepreneur. All too often the capacity to effectively start small to medium-sized tourism enterprises is lacking within the Pacific, although many potential opportunities abound. Programmes to provide the SME tourism operator with training, support and advice on human resource development are needed to ensure a vibrant tourism economy;

(d) *Support for educational and training institutions*. The current situation is confused, with too many institutions duplicating one another's efforts. The industry must recruit local personnel at all levels of the industry, including managerial levels, and it is important that educational and training institutions work together, and with other stakeholders, to meet the employment requirements of the industry and raise educational levels of the wider community;

(e) *Improved statistical gathering and research*. In order for governments to effectively plan for tourism and to measure their contributions socially and economically, the capacity to produce effective statistical data and research must be improved. Satellite accounting needs to be implemented for regional tourism. To more effectively penetrate markets, especially new emerging markets, better market research is needed. It is also urgently required to obtain a proper understanding of the extent to which different sectors of the communities, rural and urban, benefit from the various types of tourism;

(f) *Regional marketing and brand creation*. The Pacific is remote and consists of small nations separated by large distances. In order for Pacific island countries to effectively promote and market themselves internationally, especially to long-haul markets, an effective regional tourism brand must be established. Marketing activities must be consistent, professional and create sustained demand in the international marketplace;

(g) *Utilization of new media and the Internet.* The Internet and new media have dramatically affected the tourism sector, and the Internet is rapidly surpassing traditional offline mechanisms for holiday bookings. The Pacific has much to gain by effective use of technology, but is hampered by its remoteness, lack of capacity and the inaccessibility of cost-effective telecommunications;

(h) *Tourism investment.* Tourism investment in the South Pacific is hindered by internal constraints associated with the geographical location and size of the islands and infrastructure. The external factors include high transportation costs, inaccessible overseas markets and natural disasters such as cyclones, etc. Investment in setting the right platform for ecotourism, which offers the potential for improved livelihoods and household income, is a priority, given the disparate arrangements that currently exist;

(i) *Tourism and transport.* To be successful, the tourism sector needs to effectively integrate with the transport sector at both the public and private sector levels. Improved sector-wide understanding of airline cooperation models is required. At the same time, the development of tourism products and processes to encourage more cruise ships is needed.

E. Conclusions

Properly planned, tourism can play a pivotal role in the development of countries in the Pacific and bring them much-needed economic and social benefits. The growth of tourism stimulates gender-neutral employment, provides a vital source of foreign currency in often externally unbalanced economies and supports other sectors, such as agriculture, fishing, construction, services and transport. The Pacific region has much to offer. Its various peoples and its cultural and natural diversity lend themselves to a wide variety of tourism products, and tourism can lead the way as a profitable and sustainable form of development. This has been manifested by a growing number of tourist arrivals in the region.

However, the development of tourism in the Pacific is hampered by a number of pressing issues, including human capacity constraints, a lack of financial resources to support small and medium-sized tourism enterprises, difficulty in securing freehold land, and a politicized debate about the distribution of tourism benefits. In order to turn those issues into opportunities, the role of tourism in national development needs to be discussed and integrated into the national planning process, in coordination with the other economic sectors.

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